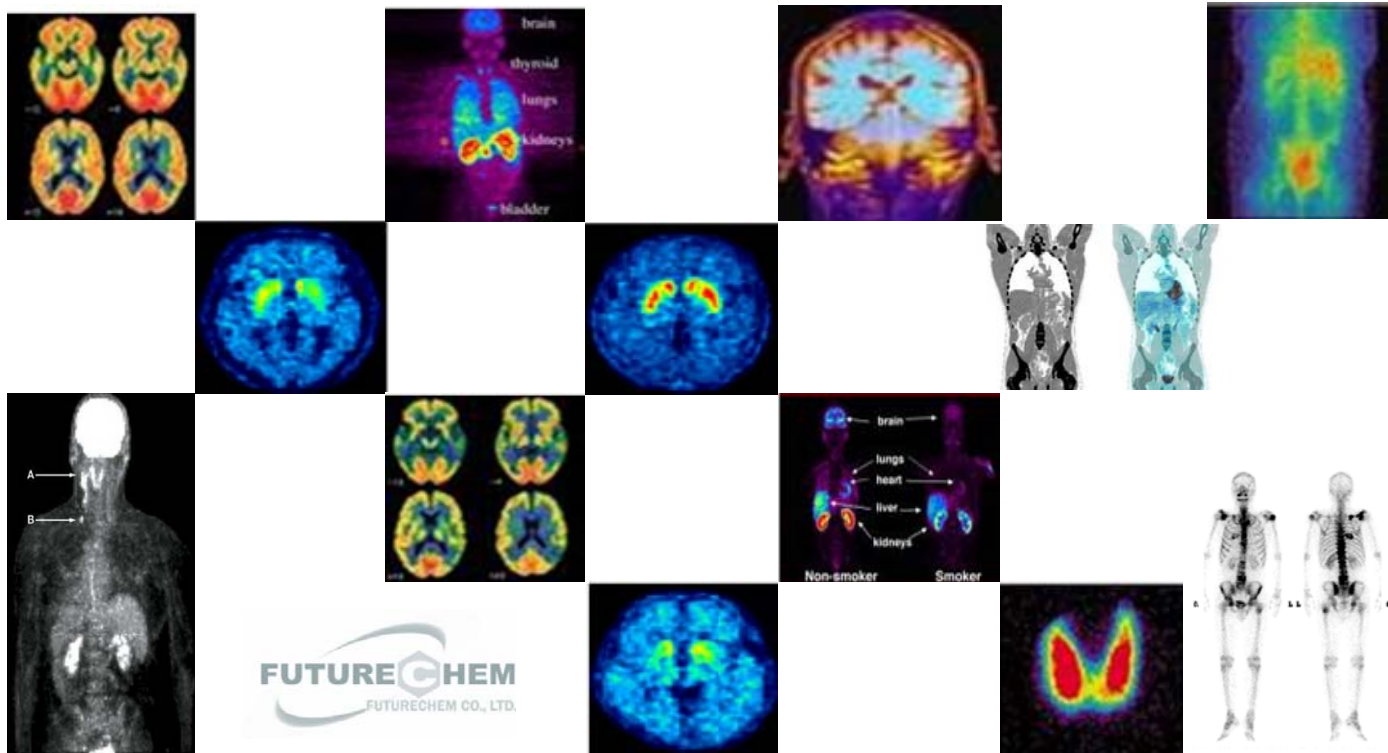


Chemistry
For Your *FUTURE*

FUTURECHEM CO., LTD.



www.futurechem.co.kr

TEL) 02-3010-8515,8517

FAX) 02-3010-8516

(주) 퓨처 케미

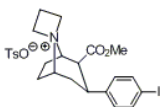


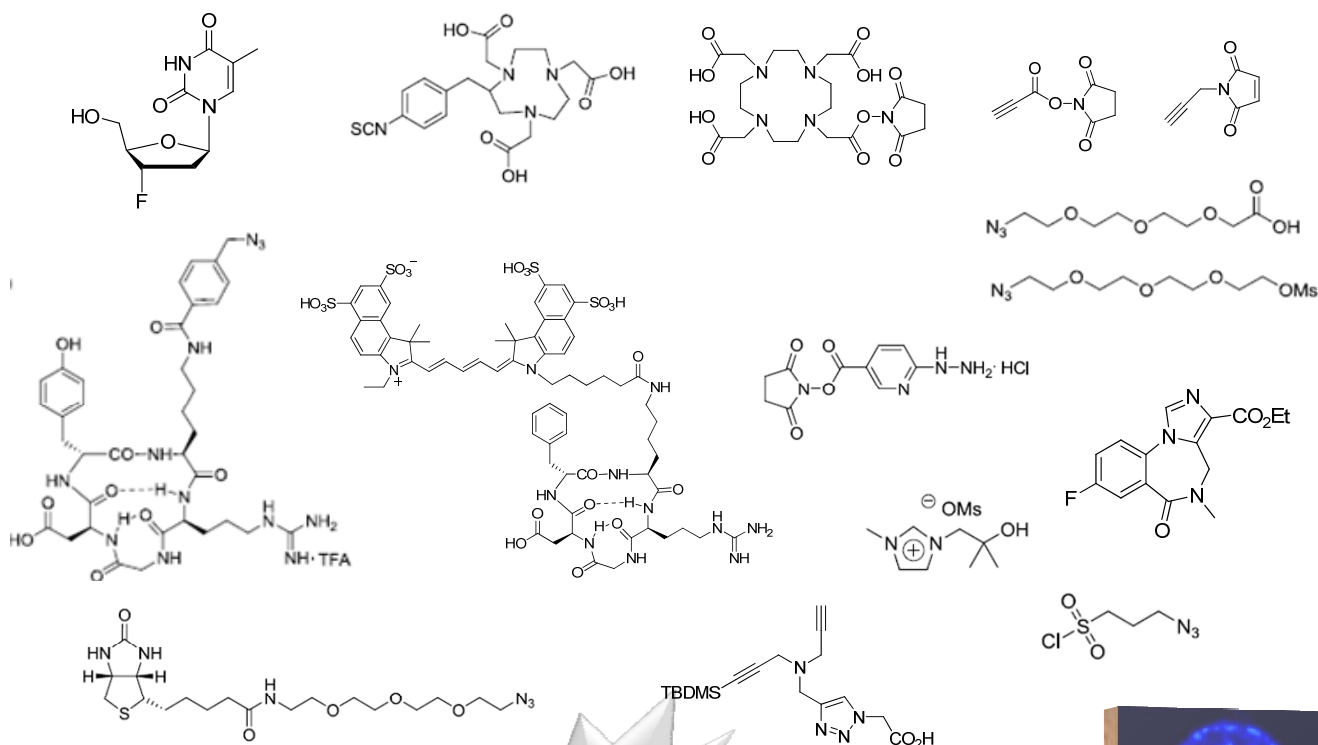
World Leading Company
for **P**ositron **E**mission **T**omography



Products

- ✓ PET/SPECT products
- ✓ Peptides
- ✓ Fluorescence Dye *New*
- ✓ Metal Chelating Agents *New*
- ✓ Click Chemicals
- ✓ Chemicals
- ✓ Ionic Liquids
- ✓ Disposable Wares *New*
- ✓ GMFC
- ✓ Custom Synthesis

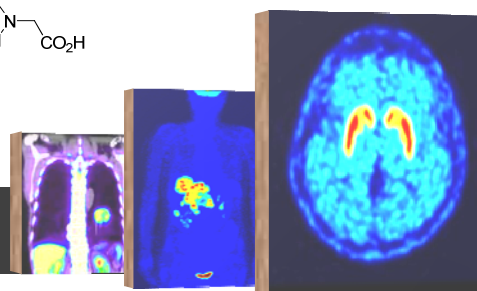
FP-CIT azetidinium salt (1'R,2'S,3'S)-3'-(4-iodophenyl)-2'-(methoxycarbonyl)spiro[azetidine-2,1'-cyclo[3,2,1]octan]-1-ium p-toluenesulfonate	
Category	PET Chemicals List (This Category)
Catalog Number	FC-1025
Chemical Name	FP-CIT azetidinium salt
Structure	 + Image Download
Appearance	White solid
Certificate	Purity: >95%, ¹ H-NMR, HPLC



More information ?

Visit

<http://futurechem.co.kr>



How to order

We ship orders within 48 hours of receipt of your order in case products are in stock. You may place orders by email, phone or fax. When you'd like to order, please send us information such as a payment method, shipping & billing addresses, phone and fax numbers, and email address to process your order promptly.

Payment

We accept VISA, MasterCard, and also bank transfers.

Our bank details for wire-transfers:

Beneficiary's name: FUTURECHEM CO., LTD.

Beneficiary's address: 6F c/o Asan Medical Center 388-1 Pungnap-2-dong Songpa-gu, Seoul 138-736, Republic of Korea

Account No.: 650-008035-721

SWIFT BIC: KOEXKRSE

Bank name: KOREA EXCHANGE BANK ASAN MEDICAL CENTER BRANCH

Bank address: c/o Asan Medical Center 388-1 Pungnap-2-dong Songpa-gu, Seoul 138-736, Republic of Korea

Credit cards:

Please provide us with your credit card information including billing address, expiry date and security code.

Shipment and handling

For customers in Korea

재고가 있는 제품의 경우 주문 후, 다음 날 받아보실 수 있습니다.

For international customers

We ship your orders by international courier services. When you specify and alter shipping method and/or freight agency, please provide your account information with such designated freight agencies along with you order details to comply with.

Storage Conditions

Basically, storage conditions for our shipping products are -20 °C in the freezer. Nevertheless, it will not affect product purity or life at higher temperatures during air flight. If the products need to be shipped using a special condition, we will give you a prior notice.

Material Safety Data Sheets (MSDS) and Certificates of Analysis (CoA) are supported with product

PET/SPECT Products

AFC-1001	FDG precursor.....	1	FC-2081	S-Benzoyl MAG3.....	5
AFC-1002	FDG authentic.....	1	FC-2091	EDTMP	5
AFC-1003	FDG-OH.....	1	FC-2111	Tributylstannyl-A-85380 precursor.....	5
AFC-1004	Acyl-FDG.....	1	FC-2112	5-I-A-85380.....	6
AFC-2001	O-Desmethylnaloxone.....	1	FC-2601	(S)-(-)-BZM	6
AFC-2002	Naloxone authentic.....	1	FC-2602	(S)-(-)-IBZM	6
AFC-3001	Norflumazenil.....	1	FC-2701	FIAU precursor (FTAU).....	6
AFC-3002	Flumazenil authentic.....	1	FC-2702	FIAU authentic	6
AFC-3011	Tributylstannyl-iomazenil	2	FC-2802	FFAU authentic	6
AFC-3012	Iomazenil authentic	2	FC-2902	FEAU authentic	6
AFC-3013	Norflumazenil.....	2	FC-2912	FMAU authentic.....	6
AFC-4001	FPBG precursor	2	FC-2941	TMS-VDU	6
AFC-4002	FPBG authentic.....	2	FC-2951	FAZA precursor.....	7
AFC-5001	FEBG precursor.....	2	FC-2952	FAZA authentic	7
AFC-5002	FEBG authentic.....	3	FC-2953	Ts-AZA	7
SFC-201001	Mesyl-flumazenil	3	FC-2961	MTMSBG	7
SFC-201002	3-(2-Fluoro)flumazenil authentic.....	3	FC-2962	MIBG.....	7
SFC-201003	Tosyl-flumazenil	3	FC-2971	TET (L-FET precursor)	7
FC-1031	FLT (Tr, Ns, Boc) precursor.....	3	FC-2972	L-FET (TFA salt).....	7
FC-1032	FLT authentic.....	3	FC-2973	D-FET (TFA salt)	7
FC-1035	FLT (Tr, OH, NH)	3	FC-3201	FBT precursor	8
FC-1036	FLT (Tr, Ns, NH).....	3	FC-3202	FBT authentic.....	8
FC-1051	Tosyl-FHBG precursor	4	FC-3301	L,L-EC	8
FC-1052	FHBG authentic	4	FC-3401	Succinimidyl-Hynic hydrochloride.....	8
FC-1061	MPPF precursor.....	4	FC-3402	Succinimidyl-N-Boc-Hynic.....	8
FC-1062	MPPF authentic	4	FC-3501	Mebrofenin.....	8
FC-1071	Tributylstannyl-Hippuric acid.....	4	FC-3601	Tosyl-Fallypride	8
FC-1072	Hippuric acid authentic.....	4	FC-3602	Fallypride	8
FC-2041	FMISO precursor	4	FC-1001	Tributylstannyl- β -CT.....	9
FC-2042	FMISO authentic.....	4	FC-1002	IPT precursor	9
FC-2051	MDP.....	4	FC-1003	IPT authentic	9
FC-2061	HMPAO.....	5	FC-1004	Nor- β -CIT	9
FC-2071	FES precursor (MOM)	5	FC-1005	β -CIT authentic	9
FC-2072	FES authentic.....	5	FC-1022	FP-CIT (Ioflupane) authentic	9
FC-2073	FES precursor (EOM).....	5	FC-1023	FP-CIT Tin precursor (Ioflupane precursor).....	9

FC-1024	FP-CIT Tosylate precursor	10
FC-1025	FP-CIT azetidinium salt	10
FC-2001	Nor- β -CFT	10
FC-2002	β -CFT authentic.....	10

PEPTIDES

FC-2201	Protected cyclic RGDyK(NH ₂)	12
FC-2202	Deprotected cyclic RGDyK	12
FC-2203	Protected cyclic RGDfK(NH ₂)	12
FC-2204	Deprotected cyclic RGDfK	12
FC-2205	Azido cyclic RGDyK.....	12
FC-2206	Propiolic cyclic RGDyK	12
FC-2209	Pentynoic cyclic RGDyK	12
FC-2210	Protected azido cyclic RGDfK.....	13
FC-2221	NOTA-cyclic RGDyK.....	13
FC-2222	Ga-NOTA-cyclic RGDyK	13
FC-6101	Azido-ApoPep-1	13
FC-6102	F-ApoPep-1	13
FC-9001	Pra-K-cyclic(CGNGRTRGC)	13

FLUORESCENCE DYE

FC-8001	R19-S	15
FC-8011	FCR-675 carboxylic acid	15
FC-8012	FNR-675 NHS ester.....	15
FC-8013	AngioFlamma™675-RGD.....	15
FC-8021	FCR-648 carboxylic acid	15
FC-8022	FNR-648 NHS ester.....	16
FC-8031	FCI-774 carboxylic acid	16
FC-8032	FNI-774 NHS ester.....	16

METAL CHELATING AGENTS

FC-2101	(<i>p</i> -SCN-Bn)-DTPA	18
FC-2121	(<i>p</i> -SCN-Bn)-NOTA	18
FC-2122	(<i>p</i> -SCN-Bn)-NOTA - Ga complex.....	18
FC-2123	NO ₂ A(tBu).....	18
FC-2124	NOTA(tBu) ₂	18
FC-2125	NOTA-NHS ester	18
FC-2126	DiBoc-TACN	18
FC-2131	(<i>p</i> -SCN-Bn)-DOTA	18

FC-2132	DO ₃ A-tBu-ester	19
FC-2133	DOTA-tris (tBu) ester.....	19
FC-2134	DOTA-NHS ester.....	19
FC-2135	TrisBoc-cyclen.....	19
FC-6095	3-Azidopropyl-NOTA.....	19
FC-6096	Propargyl-NOTA.....	19

CLICK CHEMICALS

FC-6001	1,8-Diazido-3,6-dioxaoctane	22
FC-6002	1,11-Diazido-3,6,9-trioxaundecane.....	22
FC-6033	1,14-Diazido-3,6,9,12-tetraoxatetradecane	22
FC-6003	8-Azido-3,6-dioxa-1-octanol.....	22
FC-6004	11-Azido-3,6,9-trioxa-1-undecanol.....	22
FC-6032	14-Azido-3,6,9,12-tetraoxa-1-tetradecanol	22
FC-6005	1-Amino-8-azido-3,6-dioxaoctane	22
FC-6006	1-Amino-11-azido-3,6,9-trioxaundecane	22
FC-6036	14-Azido-3,6,9,12-tetraoxa- <i>n</i> -tetradecanyleamine	22
FC-6007	8-Azido-3,6-dioxa-1-octanol mesylate	22
FC-6008	11-Azido-3,6,9-trioxa-1-undecanol mesylate.....	23
FC-6034	14-Azido-3,6,9,12-tetraoxa-1-tetradecanol mesylate.....	23
FC-6009	1-Azido-8-fluoro-3,6-dioxaoctane.....	23
FC-6010	1-Azido-11-fluoro-3,6,9-trioxaundecane.....	23
FC-6035	1-Azido-14-fluoro-3,6,9,12-tetraoxatetradecane	23
FC-6011	11-Azido-3,6,9-trioxaundecanoic acid	23
FC-6012	14-Azido-3,6,9,12-tetraoxatetradecanoic acid.....	23
FC-6039	13-Azido-5-aza-8,11-dioxa-4-oxotridecanoic acid	23
FC-6040	16-Azido-5-aza-4-oxo-8,11,14-trioxa-hexadecanoic	23
FC-6211	1-[Boc-aminoxy]acetamido-3,6-dioxa-8-azide	23
FC-6015	3,6,9-Trioxadodec-11-yn-1-ol mesylate	24
FC-6016	3,6,9,12-Tetraoxapentadec-14-yn-1-ol mesylate	24
FC-6037	3,6,9,12,15-Pentaoxa-octadec-17-yn-1-ol mesylate.....	24
FC-6030	12-Fluoro-4,7,10-trioxa-1-dodecyne.....	24
FC-6031	15-Fluoro-4,7,10,13-tetraoxa-1-pentadecyne.....	24
FC-6038	18-Fluoro-4,7,10,13,16-pentaoxa-1-octadecyne	24
FC-6041	3-Azidopropanesulfonyl chloride	24
FC-6045	Azido-acetic acid.....	24

FC-6046	1-Azido-1-deoxy- β -D-galactopyranoside tetraacetate.....	24	FC-6042	2-O-Tetrahydropyranyl-1,3-ditosylpropanetriol	29
FC-6047	3-Azidopropylamine.....	24	FC-6043	[NEt ₄] ₂ [ReBr ₃ (CO) ₃].....	29
FC-6048	Succinimidyl 4-azidobutyrate	24	FC-6044	TBDMS-Cl	30
FC-6049	Propargyl mesylate	25	FC-6050	2-(3-Methanesulfonyloxypropoxy)naphthalene.....	30
FC-6056	Propiolic acid NHS ester	25	FC-6051	2-(2-Methanesulfonyloxypropoxy)naphthalene.....	30
FC-6057	N-Propargyl maleimide	25	FC-6052	2-[2-(p-Toluene)sulfonyloxypropoxy]naphthalene.....	30
FC-6061	(+)-Biotin azidopropylamide.....	25	FC-6063	(+)-Biotin-EG ₄ -NH-glutaric acid	30
FC-6062	(+)-Biotin-EG ₄ -N ₃	25	FC-6201	Triethylene glycol-1-mesylate	30
FC-6060	N-[3-(<i>t</i> -Butyldimethylsilyl)propargyl]-N-propargyl- N-(3-trimethylsilylpropargyl)amine.....	25	FC-6202	Triethylene glycol-1-methanesulfonate-8-OTBDMS	30
FC-6066	N-[3-(<i>tert</i> -Butyldimethylsilyl)propargyl]-N-propargyl- N-3-amino-propane-1-sulfonamide.....	25	FC-6203	1-N-Boc-amino-3,6-dioxo-8-octanol mesylate.....	30
FC-6067	2-[4-[N-[(3-(<i>tert</i> -Butyldimethylsilyl)propargyl)-N-propargyl]methyl]-1 <i>H</i> -1,2,3-triazol-1-yl]acetic acid.....	25	FC-7010	3-Fluoro-2-OTHP-propyl tosylate.....	30
FC-6068	N-[3-(<i>tert</i> -Butyldimethylsilyl)propargyl]-N-propargyl-N-3-(Boc-amino)propane-1-sulfonamide	26	FC-8101	Anap sodium salt	30
FC-6070	Fmoc-L-Asn(N-propargyl)-OH	26	FC-8102	Bpy-Ala trihydrochloride.....	31
FC-6071	Fmoc-D-Asn(N-propargyl)-OH	26	FC-8103	HQ-Ala dihydrochloride.....	31
FC-6072	Fmoc-L-Asn(N-3-azidopropyl)-OH.....	26	FC-8111	Hydrazinium Carboxylate.....	31
FC-6073	Fmoc-D-Asn(N-3-azidopropyl)-OH	26	PRSA5002	Aminomethyl resin	31
FC-6090	N-[3-(Triethoxysilyl)propyl]-2-azidoacetamide.....	26	PRSA5009	Wang resin	31
FC-6091	N-[3-(Triethoxysilyl)propyl]-pent-4-ynamide	26	PRSA5066	Rink amide AM resin.....	31
CHEMICALS			PRSC5004	Merrifield resin.....	31
FC-6080	<i>n</i> -Bu ₃ Sn-Paclitaxel.....	28	PRSC5055	2-Chlorotrityl chloride resin.....	32
FC-6081	Br-Paclitaxel.....	28	PRSP5011	Polystyrene	32
FC-1037	Thymidine	28	CyC-1001	4-AA, AOSA.....	32
FC-3005	1-(2-Hydroxy-2-methylpropyl)imidazole	28	CyC-1002	4-BMA.....	32
FC-3100	2-Fluoroethanol.....	28	CyC-1003	MAP(P-2).....	32
FC-3101	2-Fluoroethanol tosylate.....	28	CyC-1004	Protected Meropenem(P-1).....	32
FC-3102	3-Fluoropropan-1-ol.....	28	CyC-1005	Side chain for Meropenem.....	32
FC-3103	3-Fluoropropanol tosylate.....	29	CyC-1006	Meropenem, crude	33
FC-3104	2-Fluoroethanol mesylate	29	CyC-1007	Me-7(p-3).....	33
FC-3105	3-Fluoropropanol mesylate	29	IONIC LIQUIDS		
FC-5001	Piceatannol.....	29	Imidazolium-based Ionic liquids.....		
FC-6017	4-Formyl-N,N,N-trimethylanilinium triflate.....	29	Ammonium-based Ionic liquids		
FC-6019	2-Nitroimidazole.....	29	Piperidinium-based Ionic liquids		
FC-6020	TBAF(<i>t</i> -BuOH) ₄	29	Pyridinium-based Ionic liquids		
			Sulfonium-based Ionic liquids.....		
			Pyrrolidinium-based Ionic liquids		

Phosphonium-based Ionic liquids.....	43
--------------------------------------	-----------

Speciality for Ionic liquids	44
------------------------------------	----

DISPOSABLE WARES

FC-D1011	Radio-Cap _A	46
FC-D1012	Radio-Cap _B	46
FC-D1013	Radio-Cap _C	46
FC-D1021	Radio-Cap _R	46
FC-D1022	Radio-Cap _{NH}	46
FC-D1023	Radio-Cap _{diol}	46
FC-D1024	Radio-Cap _{COOH}	46

GMFC

6308	Acetonitrile, 99.9%, HPLC/SPECTRO.....	48
GMFC-0001	Pd(PPh ₃) ₄	48
GMFC-0002	Pd(dba) ₂	48
GMFC-0003	1-Boc-4-methylaminopiperidine.....	48
GMFC-0004	2-Chloro-5-ethylpyrimidine.....	48

PET / SPECT PRODUCTS

- | | | |
|-------------------|---------------|------------|
| - FDG | Raclopride | Flumazenil |
| - FPBG | FLT | FHBG |
| - MPPF | Hippuric acid | FMISO |
| - MDP | HMPAO | FES |
| - A-85380 | IBZM | FIAU |
| - FAZA | MIBG | FET |
| - Hynic | Mebrofenin | Fallypride |
| - Tropane analogs | | |
| IPT | CIT | FP-CIT |
| CFT | | |

AFC-1001 FDG precursor

1,3,4,6-Tetra-*O*-acetyl-2-*O*-trifluoromethanesulfonyl- β -*D*-mannopyranose

[92051-23-5]

C₁₅H₁₉F₃O₁₂S MW 480.36

¹H NMR, MP, purity

>98% (HPLC)

Order Unit

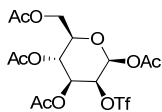
20 mg: AFC-1001-20

100 mg: AFC-1001-100

References

-Hamacher K. et al. Efficient stereospecific synthesis of no-carrier-added 2-[¹⁸F]fluoro-2-deoxy-D-glucose using amino-polyether supported nucleophilic substitution. *J. Nucl. Med.* **1986**, 27, 235-238.

-Kwee, T. C. et al. Complementary Roles of Whole-Body Diffusion-Weighted MRI and ¹⁸F-FDG PET: The State of the Art and Potential Applications. *J. Nucl. Med.* **2010**, 51, 1549-1558.



C₁₄H₁₈Cl₂N₂O₃ MW 333.21

¹H NMR, purity

>98% (HPLC)

Order Unit

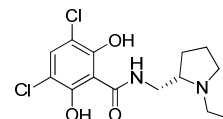
1 mg: AFC-2001-1

References

-Oliver Langer et al. Precursor synthesis and radiolabelling of the Dopamine D₂ receptor ligand [¹¹C]Raclopride from [¹¹C]Methyl triflate. *J. Labelled Compd. Radiopharm.* **1999**, 42, 1183-1193.

-Ehring E. et al. Synthesis of [Methoxy-³H]- and [Methoxy-¹¹C]-Labelled Raclopride. Specific Dopamine-D₂ Receptor Ligands. *J. Labelled Compd. Radiopharm.* **1987**, 24, 931-940.

-De Paulis T. et al. Potential Neuroleptic Agents. Chemistry, Behavioral Pharmacology, and inhibition of [³H]Spiperone Binding of 3,5-Disubstituted N-[(1-Ethyl-2-pyrrolidinyl)methyl]-6-methoxy-salicylamides. *J. Med. Chem.* **1986**, 29, 61-69.



10 mg : AFC-2001-10

AFC-1002 FDG authentic

2-Deoxy-2-fluoro-*D*-glucose

[86783-82-6]

C₆H₁₁FO₅ MW 182.15

¹H NMR

>95%

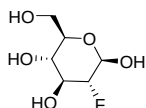
Order Unit

10 mg: AFC-1002-10

References

-Hamacher K. et al. Efficient stereospecific synthesis of no-carrier-added 2-[¹⁸F]fluoro-2-deoxy-D-glucose using amino-polyether supported nucleophilic substitution. *J. Nucl. Med.* **1986**, 27, 235-238.

-Kwee, T. C. et al. Complementary Roles of Whole-Body Diffusion-Weighted MRI and ¹⁸F-FDG PET: The State of the Art and Potential Applications. *J. Nucl. Med.* **2010**, 51, 1549-1558.

**AFC-2002 Raclopride authentic**

(2*S*)-3,5-Dichloro-*N*-[(1-ethyl-2-pyrrolidinyl)methyl]-6-hydroxy-2-methoxybenzamide

[84225-95-6]

C₁₅H₂₀Cl₂N₂O₃ MW 347.24

¹H NMR, purity

>95% (HPLC)

Order Unit

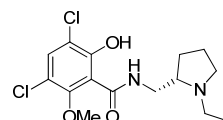
1 mg: AFC-2002-1

References

-Oliver Langer et al. Precursor synthesis and radiolabelling of the Dopamine D₂ receptor ligand [¹¹C]Raclopride from [¹¹C]Methyl triflate. *J. Labelled Compd. Radiopharm.* **1999**, 42, 1183-1193.

-Ehring E. et al. Synthesis of [Methoxy-³H]- and [Methoxy-¹¹C]-Labelled Raclopride. Specific Dopamine-D₂ Receptor Ligands. *J. Labelled Compd. Radiopharm.* **1987**, 24, 931-940.

-De Paulis T. et al. Potential Neuroleptic Agents. Chemistry, Behavioral Pharmacology, and inhibition of [³H]Spiperone Binding of 3,5-Disubstituted N-[(1-Ethyl-2-pyrrolidinyl)methyl]-6-methoxy-salicylamides. *J. Med. Chem.* **1986**, 29, 61-69.

**AFC-1003 FDG-OH**

1,3,4,6-Tetra-*O*-acetyl- β -*D*-mannopyranose

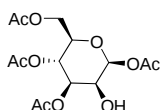
[18968-05-3]

C₁₄H₂₀O₁₀ MW 348.30

¹H NMR

>95%

Order Unit

**AFC-1004 Acyl-FDG**

2-Fluoro-2-deoxy-glucose tetraacetate

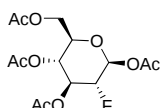
[141395-48-4]

C₁₄H₁₉FO₉ MW 350.29

¹H NMR

>95%

Order Unit

**AFC-2001 O-Desmethyleraclopride**

(*S*)-3,5-Dichloro-*N*-[(1-ethyl-2-pyrrolidinyl)methyl]-2,6-dihydroxybenzamide

[119670-11-0]

AFC-3001 Norflumazenil

Ethyl 8-fluoro-5,6-dihydro-6-oxo-4*H*-imidazo[1,5-*a*][1,4]-benzodiazepine-3-carboxylate

[79089-72-8]

C₁₄H₁₂FN₃O₃ MW 289.26

¹H NMR, purity

>95% (HPLC)

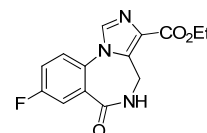
Order Unit

1 mg: AFC-3001-1

10 mg: AFC-3001-10

References

-Nagren K. et al. Methylation of amide and thiol functions with ¹¹C)methyl triflate, as exemplified by [¹¹C]NMSP, [¹¹C]flumazenil and [¹¹C]methionine. *J. Labelled Compd. Radiopharm.* **1998**, 41, 831-841.

**AFC-3002 Flumazenil authentic**

Ethyl 8-fluoro-5,6-dihydro-5-methyl-6-oxo-4*H*-imidazo-[1,5-*a*][1,4]-

benzodiazepine- 3-carboxylate

[78755-81-4]

C₁₅H₁₄FN₃O₃ MW 303.29¹H NMR, purity

>95% (HPLC)

Order Unit

1 mg: AFC-3002-1

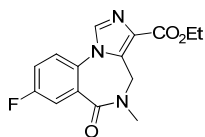
References

- Nagren K. et al. Methylation of amide and thiol functions with [¹¹C]methyl triflate, as exemplified by [¹¹C]NMSP, [¹¹C]flumazenil and [¹¹C]methionine. *J. Labelled Compd. Radiopharm.* **1998**, *41*, 831-841.

- Gerecke M. et al. New tetracyclic derivatives of imidazo[1,5-a][1,4]benzodiazepines and of imidazo[1,5-a]thieno[3,2-f][1,4]diazepines. *Heterocycles* **1994**, *39*, 693-721

- Zi-Qiang Gu et al. Synthesis of evaluation of imidazo[1,5-a][1,4]benzodiazepine esters with high affinities and selectivities at "Diazepam-Insensitive" benzodiazepine receptors. *J. Med. Chem.* **1993**, *36*, 1001-1006.

- Suzuki K. et al. Computer-controlled large scale production of high specific activity [¹¹C]RO 15-1788 for PET studies of benzodiazepine receptors. *Int. J. Appl. Radiat. Isot.* **1985**, *36*, 971-976.



AFC-3011 Tributylstannyl-iomazenil

5,6-Dihydro-5-methyl-6-oxo-7-tributyltin-4H-imidazo[1,5-a][1,4]-benzodiazepine-3-carboxylic acid ethyl ester

[132615-56-6]

C₂₇H₄₁N₃O₃Sn MW 574.34¹H NMR, purity

>95% (HPLC)

Order Unit

100 ug: AFC-3011-100ug

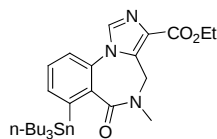
1 mg: AFC-3011-1

10 mg: AFC-3011-10

References

-Sybirska E. et al. SPECT imaging of the benzodiazepine receptor: autoradiographic comparison of receptor density and radioligand distribution. *Synapse* **1992**, *12*, 119-128.

-Pappata, S. et al. SPECT imaging of GABAA/benzodiazepine receptors and cerebral perfusion in mild cognitive impairment. *Eur. J. Nucl. Med. Mol. Imaging* **2010**, *37*, 1156-1163.



AFC-3012 Iomazenil authentic

Ethyl 7-iodo-5,6-dihydro-5-methyl-6-oxo-4H-imidazo[1,5-a][1,4]-benzodiazepine-3-carboxylate

[127985-21-1]

C₁₅H₁₄IN₃O₃ MW 411.19¹H NMR, purity

>95% (HPLC)

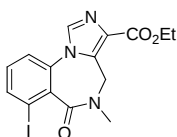
Order Unit (Bulk quantities is possible)

1 mg: AFC-3012-1

References

- Sybirska E. et al. SPECT imaging of the benzodiazepine receptor: autoradiographic comparison of receptor density and radioligand distribution. *Synapse* **1992**, *12*, 119-128.

- Pappata, S. et al. SPECT imaging of GABAA/benzodiazepine receptors and



cerebral perfusion in mild cognitive impairment. *Eur. J. Nucl. Med. Mol. Imaging* **2010**, *37*, 1156-1163.

AFC-3013 Noriomazenil

Ethyl 7-iodo-5,6-dihydro-6-oxo-4H-imidazo[1,5-a][1,4]-benzodiazepine-3-carboxylate

[169327-51-9]

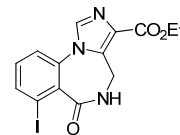
C₁₄H₁₂IN₃O₃ MW 397.17¹H NMR, purity

>95% (HPLC)

Order Unit

References

- Bremner J. D. et al. Kinetic Modeling of Benzodiazepine Receptor Binding with PET and High Specific Activity [¹¹C]Iomazenil in Healthy Human Subjects. *Synapse* **2000**, *35*, 68-77.



AFC-4001 FPBG precursor

N,N'-Bis(tert-butyloxycarbonyl)-N''-3-(3-toluenesulfonyloxypropyl)-benzylguanidine

C₂₈H₃₉N₃O₇S MW 561.69¹H NMR, purity

>95% (HPLC)

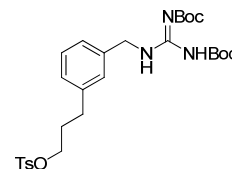
Order Unit

2 mg: AFC-4001-2

10 mg: AFC-4001-10

References

-Lee B. C. et al. Potential and Practical Adrenomedullary PET Radiopharmaceuticals as an Alternative to m-Iodobenzylguanidine: m-(w-[¹⁸F]Fluoroalkyl)benzylguanidines. *Bioconjugate Chem.* **2004**, *15*, 104-111.



AFC-4002 FPBG authentic

3-(3-Fluoropropyl)benzylguanidine

[655251-09-5]

C₁₁H₁₆FN₃ MW 209.26¹H NMR, purity

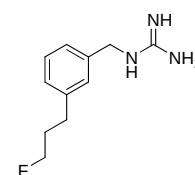
>95% (HPLC)

Order Unit

1 mg: AFC-4002-1

References

-Lee B. C. et al. Potential and Practical Adrenomedullary PET Radiopharmaceuticals as an Alternative to m-Iodobenzylguanidine: m-(w-[¹⁸F]Fluoroalkyl)benzylguanidines. *Bioconjugate Chem.* **2004**, *15*, 104-111.



AFC-5001 FEBG precursor

N,N'-Bis(tert-butyloxycarbonyl)-N''-3-(2-methanesulfonyloxyethyl)-benzylguanidine

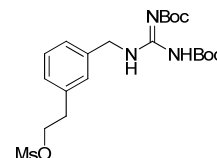
[655251-05-1]

C₂₁H₃₃N₃O₇S MW 471.57¹H NMR, purity

>95% (HPLC)

Order Unit

2 mg: AFC-5001-2



AFC-5002 FEBG authentic

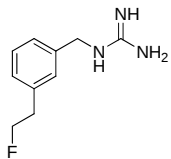
3-(2-Fluoroethyl)benzylguanidine

[655251-08-4]

C₁₀H₁₄FN₃ MW 195.24¹H NMR, purity

>95% (HPLC)

Order Unit

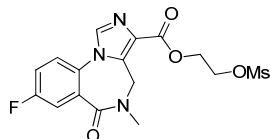
**SFC-201001 Mesyl-flumazenil**8-Fluoro-5,6-dihydro-5-methyl-6-oxo-5,6-dihydro-4*H*-imidazo[1,5-*a*][1,4]benzodiazepine-3-carboxylic acid 2-(methanesulfonyloxy)ethyl ester

[676437-18-6]

C₁₆H₁₆FN₃O₆S MW 397.38¹H NMR, purity

>95% (HPLC)

Order Unit

**SFC-201002 3-(2-Fluoro)flumazenil authentic**8-Fluoro-5,6-dihydro-5-methyl-6-oxo-5,6-dihydro-4*H*-imidazo[1,5-*a*][1,4]benzodiazepine-3-carboxylic acid 2-fluoroethyl ester

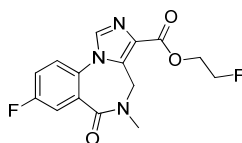
[1094520-66-7]

C₁₅H₁₃F₂N₃O₃ MW 321.28¹H NMR, purity

>95% (HPLC)

Order Unit

2 mg: SFC-201002-2

**SFC-201003 Tosyl-flumazenil**8-Fluoro-5,6-dihydro-5-methyl-6-oxo-5,6-dihydro-4*H*-imidazo[1,5-*a*][1,4]benzodiazepine-3-carboxylic acid 2-(*p*-toluenesulfonyloxy)ethyl ester

[676437-17-5]

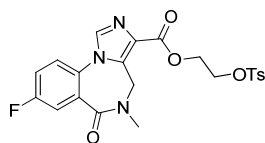
C₂₂H₂₀FN₃O₆S MW 473.47¹H NMR, purity

>95% (HPLC)

Order Unit

2 mg: AFC-201003-2

10 mg: AFC-201003-10

**FC-1031 FLT (Tr, Ns, Boc) precursor**3-*N*-Boc-1-(2-deoxy-3-*O*-nosyl-5-*O*-trityl-β-D-lyxofuranosyl)thymine

[444717-24-2]

C₄₀H₃₉N₃O₁₁S MW 769.82¹H NMR, purity

>98% (HPLC)

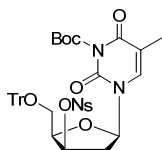
Order Unit

20 mg: FC-1031-20

100 mg: FC-1031-100

References

-Oh S. J. et al. High radiochemical yield synthesis of 3'-deoxy-3'-[¹⁸F]Fluorothymidine using (5'-O-dimethoxytrityl-2'-deoxy-3'-O-nosyl-beta-D-threo-pentofuranosyl)thymine and its 3-N-BOC-protected analogue as a



labeling precursor. *Nucl. Med. Biol.* **2003**, *30*, 151-157.

-Kim D. W. et al. A New Class of SN2 Reactions Catalyzed by Protic Solvents: Facile Fluorination for Isotopic Labeling of Diagnostic Molecules. *J. Am. Chem. Soc.* **2006**, *128*, 16394-16397.

FC-1032 FLT authentic

3'-Deoxy-3'-fluorothymidine

[25526-93-6]

C₁₀H₁₃FN₂O₄ MW 244.22¹H NMR, purity

>98% (HPLC)

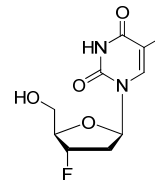
Order Unit

1 mg: FC-1032-1

10 mg: FC-1032-10

References

-Eisenhut M. et al. Synthesis of 3'-deoxy-3'-[¹⁸F]fluorothymidine with 2,3'-anhydro-5'-O-(4,4'-dimethoxytrityl)-thymidine. *J. Labelled compd. Radiopharm.* **2000**, *43*, 1211-1218

**FC-1035 FLT (Tr, OH, NH)**1-(2-Deoxy-5-*O*-trityl-β-D-lyxofuranosyl)thymine

[55612-11-8]

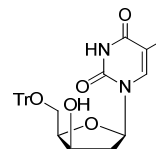
C₂₉H₂₈N₂O₅ MW 484.54¹H NMR, purity

>95% (HPLC)

Order Unit

100 mg: FC-1035-100

1 g: FC-1035-1g

**FC-1036 FLT (Tr, Ns, NH)**1-(2-Deoxy-3-*O*-nosyl-5-*O*-trityl-β-D-lyxofuranosyl)thymine

[471854-53-2]

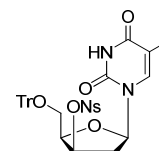
C₃₅H₃₁N₃O₉S MW 669.70¹H NMR, purity

>95% (HPLC)

Order Unit

100 mg: FC-1036-100

1 g: FC-1036-1g

**Custom Synthesis**

Don't worry about custom synthesis.

We provide the highest quality and reasonable price

- Custom designed Peptides
- Carbohydrates
- PET/SPECT standard compounds
- Dye conjugated compounds
- Etc.

FC-1051 Tosyl-FHBG precursor

N²-(*p*-Anisyl)diphenylmethyl)-9-[(4-(*p*-toluenesulfonyloxy))-3-*p*-anisyl)diphenylmethoxymethylbutyl]guanine

[206067-84-7]

C₅₇H₅₃N₅O₇S MW 952.13

¹H NMR, purity

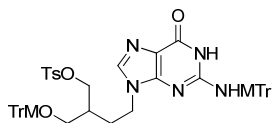
>95% (HPLC)

Order Unit

10 mg: FC-1051-10

References

-Se Hun Kang et al. Comparison of two full automatic synthesis methods of 9-(4-[¹⁸F]fluoro-3-hydroxymethylbutyl)guanine using different chemistry modules. *Applied Radiation and Isotopes* **2009**, 67, 1758-1763.

**FC-1052 FHBG authentic**

9-[(4-Fluoro)-3-hydroxymethylbutyl]guanine

[206067-83-6]

C₁₀H₁₄FN₅O₂ MW 255.25

¹H NMR, purity

>95% (HPLC)

Order Unit

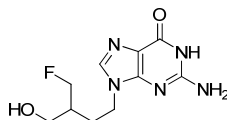
1 mg: FC-1052-1

References

- Se Hun Kang et al. Comparison of two full automatic synthesis methods of 9-(4-[¹⁸F]fluoro-3-hydroxymethylbutyl)guanine using different chemistry modules. *Applied Radiation and Isotopes* **2009**, 67, 1758-1763.

- Mian M. et al. Synthesis and preliminary evaluation of 9-(4-[¹⁸F]-Fluoro-3-hydroxymethyl)Guanine([¹⁸F]FHBG) : A new potential imaging agent for viral infection and gene therapy using PET. *Nucl. Med. Biol.* **1998**, 25, 175-180.

- Michael R. Harnden et al. Synthesis and antiviral activity of 9-[4-Hydroxy-3-(hydroxymethyl)but-1-yl]purines. *J. Med. Chem.* **1987**, 30, 1636-1642.

**FC-1061 MPPF precursor**

{2-[4-(2-Methoxyphenyl)piperazin-1-yl]ethyl}-2-pyridinylamine

[155204-28-7]

C₁₈H₂₄N₄O MW 312.41

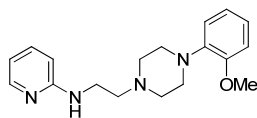
¹H NMR

>95%

Order Unit

10 mg: FC-1061-10

100 mg: FC-1061-100

**FC-1062 MPPF authentic**

4-Fluoro-*N*-[2-[4-(2-methoxyphenyl)piperazin-1-yl]ethyl]-*N*-2-pyridinylbenzamide

[155204-26-5]

C₂₅H₂₇FN₄O₂ MW 434.51

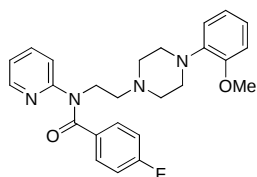
¹H NMR

>95%

Order Unit

1 mg: FC-1062-1

10 mg: FC-1062-10

**FC-1071 Tributylstannyl-Hippuric acid**

2-Tributylstannylhippuric acid

C₂₁H₃₅NO₃Sn MW 468.22

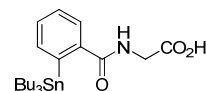
¹H NMR

>95%

Order Unit

References

-Visscher C. et al. Angiotensin-converting enzyme inhibition-induced changes in hippurate renography and renal function in renovascular hypertension. *J. Nucl. Med.* **1996**, 37, 484-488.

**FC-1072 Hippuric acid authentic**

2-Iodohippuric acid

[147-58-0]

C₉H₈INO₃ MW 305.07

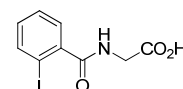
¹H NMR

>95%

Order Unit

References

-Visscher C. et al. Angiotensin-converting enzyme inhibition-induced changes in hippurate renography and renal function in renovascular hypertension. *J. Nucl. Med.* **1996**, 37, 484-488.

**FC-2041 FMISO precursor**

1-(2'-Nitro-1'-imidazolyl)-2-*O*-tetrahydropyranyl-3-*O*-tosylpropanediol

[150196-34-2]

C₁₈H₂₃N₃O₇S MW 425.46

¹H NMR, purity

>95%

Order Unit

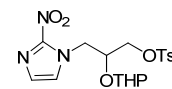
10 mg: FC-2041-10

50 mg: FC-2041-50

References

-Hamacher K. et al. Remote controlled one step production of 18F-labeled butyrophenone neuroleptics exemplified by the synthesis of n.c.a. [¹⁸F]N-methylspiperone. *Appl. Radiat. Isot.* **1995**, 46, 911-916.

-Chi D. Y. et al. Synthesis of no carrier added N-(3-[¹⁸F]fluoroalkyl)-spiperone derivatives. *Appl. Radiat. Isot.* **1986**, 37, 1173-1180.

**FC-2042 FMISO authentic**

Fluoromisonidazole

[13551-89-8]

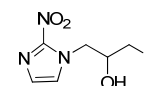
C₆H₈FN₃O₃ MW 189.14

¹H NMR

>95%

Order Unit

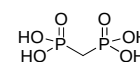
1 mg: FC-2042-1

**FC-2051 MDP**

Methylenediphosphonic acid

[1984-15-2]

CH₆O₆P₂ MW 176.0



¹H NMR

>95%

Order Unit

1 g: FC-2051-1g

References

-Hoch D. J. et al. Reversed-phase HPLC of technetium-99m methylene diphosphonate bone imaging kits with quantification of pertechnetate. *Appl. Radiat. Isot.* **1986**, 37, 593-598.

-Banerjee S. et al. Tc-99m and Re-186 complexes of tetraphosphonate ligands and their biodistribution pattern in animal models. *Nucl. Med. Biol.* **2001**, 28, 205-213.

FC-2061 HMPAO

(±)-(3*RS*,3'*RS*)-3,3'-[(2,2-dimethyltrimethylene)-diimino]di-2-butanone dioxime
[105613-48-7]

C₁₃H₂₈N₄O₂ MW 272.39¹H NMR

>95%

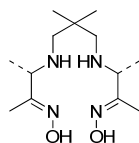
Order Unit

10 mg: FC-2061-10

References

-Wilson K. et al. The diagnosis of brain death with Tc-99m HMPAO. *Clin. Nucl. Med.* **1993**, 18, 428-434.

-Uno K. et al. Technetium-99m HMPAO labeled leukocytes in inflammation imaging. *Ann. Nucl. Med.* **1991**, 5, 77-81.

**FC-2071 FES precursor (MOM)**3-*O*-Methoxymethyl-16,17-*O*-sulfuryl-16-epiestriol

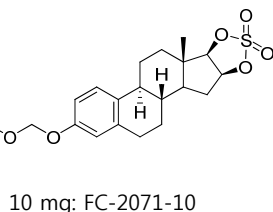
[177714-21-5]

C₂₀H₂₆O₆S MW 394.48¹H NMR, purity

>95% (HPLC)

Order Unit

2 mg: FC-2071-2



10 mg: FC-2071-10

References

-Seung Jun Oh, Dae Yoon Chi, et al. The automatic production of 16alpha-[¹⁸F]fluoroestradiol using a conventional [¹⁸F]FDG module with a disposable cassette system. *Applied Radiation and Isotopes* **2007**, 65, 676-681.

FC-2072 FES authentic

16α-Fluoro-17β-estradiol

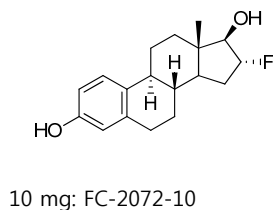
[92817-10-2]

C₁₈H₂₃FO₂ MW 290.37¹H NMR, purity

>95% (HPLC)

Order Unit

1 mg: FC-2072-1



10 mg: FC-2072-10

References

-Seung Jun Oh, Dae Yoon Chi, et al. The automatic production of 16alpha-[¹⁸F]fluoroestradiol using a conventional [¹⁸F]FDG module with a disposable cassette system. *Applied Radiation and Isotopes* **2007**, 65, 676-681.

-Yann Scimibille et al. Synthesis of 16 α-fluoro ICI 182,780 derivatives: powerful antiestrogens to image estrogen receptor densities in breast cancer

by positron emission tomography. *J. Chem. Soc., Perkin Trans. 1* **2002**, 2275-2281

- Lim J. L. et al The use of 3-methoxymethyl-16 α, 17 β-epiestriol-O-cyclic sulfone as the precursor in the synthesis of [¹⁸F]-16alpha-fluoroestradiol. *Nucl. Med. Biol.* **1996**, 23, 911-915

- Berridge M. S. et al. Cyclic sulfates: useful substrates for selective nucleophilic substitution. *J. Org. Chem.* **1990**, 55, 1211-1217

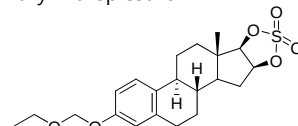
FC-2073 FES precursor (EOM)3-*O*-Ethoxymethyl-16,17-*O*-sulfuryl-16-epiestriolC₂₁H₂₈O₆S MW 408.51¹H NMR, purity

>95% (HPLC)

Order Unit

2 mg: FC-2073-2

10 mg: FC-2073-10

**FC-2081 S-Benzoyl MAG3**

S-Benzoyl MAG-3

[103725-47-9]

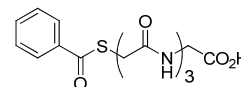
C₁₅H₁₇N₃O₆S MW 367.38¹H NMR

>95%

Order Unit

100 mg: FC-2081-100

1 g: FC-2081-1g



References

-Decristoforo C. et al. Technetium-99m somatostatin analogues: effect of labelling methods and peptide sequence. *Eur. J. Nucl. Med.* **1999**, 26, 869-876.

FC-2091 EDTMP

Ethylenediaminetetramethylenephosphonic acid

[1429-50-1]

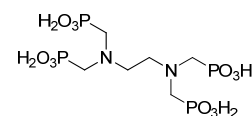
C₆H₂₀N₂O₁₂P₄ MW 436.12¹H NMR

>95%

Order Unit

References

-Laznick M. et al. Comparison of biological characteristics of EDTMP complexes with ^{99m}Tc, ¹¹¹In and ¹⁵³Sm in rats. *Appl. Radiat. Isot.* **1994**, 45, 949-953.

**FC-2111 Tributylstannyl-A-85380 precursor**

(*S*)-5-(Tributylstannyl)-3-[[1-(*tert*-butoxycarbonyl)-2-azetidinyl]-methoxy]pyridine

[224789-85-9]

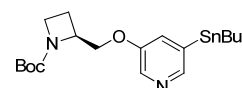
C₂₆H₄₆N₂O₃Sn MW 553.37¹H NMR

>95%

Order Unit

50 ug: FC-2111-50ug

100 ug: FC-2111-100ug



References

-Fujita M. et al. Quantification of nicotinic acetylcholine receptors in human brain using [¹²³I]5-I-A-85380 SPECT. *Eur. J. Nucl. Med. Mol. Imaging* **2003**, 30, 1620-1629.

FC-2112 5-I-A-85380

(S)-5-Iodo-(3-azetidylmethoxy)pyridine dihydrochloride

 $C_9H_{11}IN_2O \cdot 2 HCl$ MW 363.02 1H NMR

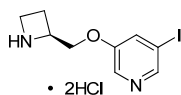
>95%

Order Unit

1 mg: FC-2112-1

References

- Fujita M. et al. Influence of acetylcholine levels on the binding of a SPECT nicotinic acetylcholine receptor ligand [^{123}I]5-I-A-85380. *Synapse* **2003**, *48*, 116-122

**FC-2601 (S)-(-)-BZM**

(S)-(-)-2-Hydroxy-6-methoxy-N-[(1-ethyl-2-pyrrolidinyl)-methyl]benzamide

[84226-04-0]

 $C_{15}H_{22}N_2O_3$ MW 278.35 1H NMR

>95%

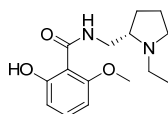
Order Unit

1 mg: FC-2601-1

10 mg: FC-2601-10

References

- Piccini P. et al. Functional brain imaging in the differential diagnosis of Parkinson's disease. *Lancet Neurol* **2004**, *3*, 284-290.

**FC-2602 (S)-(-)-IBZM**

(S)-(-)-3-Iodo-2-hydroxy-6-methoxy-N-[(1-ethyl-2-pyrrolidinyl)-methyl]benzamide

[84226-06-2]

 $C_{15}H_{21}IN_2O_3$ MW 404.24 1H NMR

>95%

Order Unit

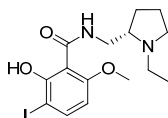
1 mg: FC-2602-1

References

- Meyer P. T. et al. Comparison of intravenous and intraperitoneal [^{123}I]IBZM injection for dopamine D2 receptor imaging in mice. *Nucl. Med. Biol.* **2008**, *35*, 543-548.

- Koch W. et al. Iterative reconstruction or filtered backprojection for semi-quantitative assessment of dopamine D2 receptor SPECT studies? *Eur. J. Nucl. Med. Mol. Imaging* **2011**, *38*, 1095-1103.

- Nikolaus S. et al. Binding of [^{123}I]iodobenzamide to the rat D2 receptor after challenge with various doses of methylphenidate: an in vivo imaging study with dedicated small animal SPECT. *Eur. J. Nucl. Med. Mol. Imaging* **2011**, *38*, 694-701.

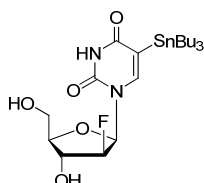
**FC-2701 FIAU precursor (FTAU)**1-(2-Deoxy-2-fluoro- β -D-arabinofuranosyl)-5-tributylstannyluracil

[732298-75-8]

 $C_{21}H_{37}FN_2O_5Sn$ MW 535.24 1H NMR, purity

>95%

Order Unit

100 μ g: FC-2701-0.1

10 mg: FC-2701-10

References

- Win-Ping Deng. et al. Non-invasive in vivo imaging with radiolabelled FIAU for monitoring cancer gene therapy using herpes simplex virus type 1 thymidine kinase and ganciclovir. *Eur J Nucl Med Mol Imaging* **2004**, *31*, 99-109.

- Eun Jung Kim et al. Effects of structural differences between radioiodine-labeled 1-(2'-fluoro-2'-deoxy-d-arabinofuranosyl)-5-iodouracil (FIAU) and 1-(2'-fluoro-2'-deoxy-d-ribofuranosyl)-5-iodouracil (FIRU) on HSV1-TK reporter gene imaging, *Applied Radiation and Isotopes* **2010**, *68*, 971-978

FC-2702 FIAU authentic1-(2-Deoxy-2-fluoro- β -D-arabinofuranosyl)-5-iodo-uracil (FIAU)

[69123-98-4]

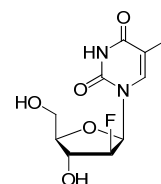
 $C_9H_{10}FIN_2O_5$ MW 372.09 1H NMR, purity

>98%

Order Unit

1 mg: FC-2702-1

10 mg: FC-2702-10

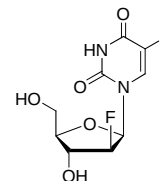
**FC-2802 FFAU authentic**1-(2-Deoxy-2-fluoro- β -D-arabinofuranosyl)-5-fluorouracil

[69123-95-1]

 $C_9H_{10}F_2N_2O_5$ MW 264.18 1H NMR

>95%

Order Unit

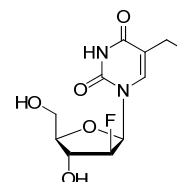
**FC-2902 FEAU authentic**1-(2-Deoxy-2-fluoro- β -D-arabinofuranosyl)-5-ethyluracil

[83546-42-3]

 $C_{11}H_{15}FN_2O_5$ MW 274.25 1H NMR

>95%

Order Unit

**FC-2912 FMAU authentic**1-(2-Deoxy-2-fluoro- β -D-arabinofuranosyl)thymine

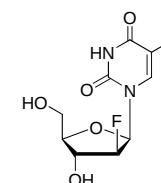
[69256-17-3]

 $C_{10}H_{13}FN_2O_5$ MW 260.22 1H NMR, purity

>95% (HPLC)

Order Unit

10 mg: FC-2912-10

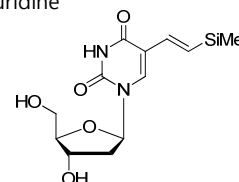
**FC-2941 TMS-VDU**

2'-Deoxy-5-(trans-2-trimethylsilylviny)uridine

[178179-66-3]

 $C_{14}H_{22}N_2O_5Si$ MW 326.42 1H NMR

>95%



Order Unit

References

- Morin K. W. et al. Synthesis and Cellular Uptake of 2'-Substituted Analogs of (E)-5-(2-[¹²⁵I]iodovinyl)-2'-deoxyuridine in Tumor Cells Transduced with the Herpes Simplex Type-1 Thymidine Kinase Gene. Evaluation as Probes for Monitoring Gene Therapy. *J. Med. Chem.* **1997**, *40*, 2184-2190.
- Choi T. H. et al. In vivo comparison of IVDU and IVFRU in HSV1-TK gene expressing tumor bearing rats. *Appl. Radiat. Isot.* **2004**, *60*, 15-21.

FC-2951 FAZA precursor

1-(2,3-Diacetyl-5-tosyl- α -D-arabinofuranosyl)-2-nitroimidazole
[494775-35-8]

C₁₉H₂₁N₃O₁₀S MW 483.45

¹H NMR, purity
>95% (HPLC)

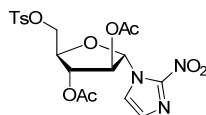
Order Unit

2 mg: FC-2951-2

10 mg: FC-2951-10

References

- Piert M. et al. Hypoxia-Specific Tumor Imaging with ¹⁸F-Fluoroazomycin Arabinoside. *J. Nucl. Med.* **2005**, *46*, 106-113.

**FC-2952 FAZA authentic**

1-(5-Deoxy-5-fluoro- α -D-arabinofuranosyl)-2-nitroimidazole
[220793-03-3]

C₈H₁₀FN₃O₅ MW 247.18

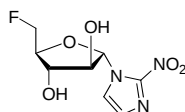
¹H NMR, purity
>95% (HPLC)

Order Unit

1 mg: FC-2952-1

References

- Piert M. et al. Hypoxia-Specific Tumor Imaging with ¹⁸F-Fluoroazomycin Arabinoside. *J. Nucl. Med.* **2005**, *46*, 106-113.

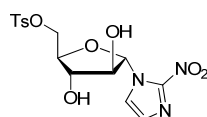
**FC-2953 Ts-AZA**

1-(2,3-Dihydroxyl-5-tosyl- α -D-arabinofuranosyl)-2-nitroimidazole
C₁₅H₁₇N₃O₈S MW 399.38

¹H NMR, purity
>95% (HPLC)

Order Unit

2 mg: FC-2953-2

**FC-2961 MTMSBG**

(3-Trimethylsilylbenzyl)guanidine hemisulfate

Free base: [143773-92-6]

C₁₁H₁₉N₃Si · 1/2 H₂SO₄ MW 483.45

¹H NMR, purity
>95% (HPLC)

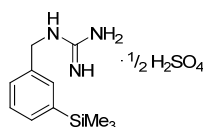
Order Unit

1 mg: FC-2961-1

10 mg: FC-2961-10

References

- Gelfand M. J. et al. Iodine-123-MIBG SPECT versus planar imaging in children with neural crest tumors. *J. Nucl. Med.* **1994**, *35*, 1753-1757.

**FC-2962 MIBG**

(3-Iodobenzyl)guanidine · trifluoroacetate salt

Free base: [87862-25-7]

C₈H₁₀IN₃ · CF₃COOH MW 389.11

¹H NMR, purity
>95% (HPLC)

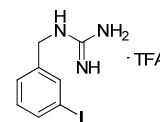
Order Unit

1 mg: FC-2962-1

10 mg: FC-2962-10

References

- Gelfand M. J. et al. Iodine-123-MIBG SPECT versus planar imaging in children with neural crest tumors. *J. Nucl. Med.* **1994**, *35*, 1753-1757.
- Taniguchi Y. et al. Myocardial ischemia and abnormality of cardiac sympathetic nervous function in apical hypertrophic cardiomyopathy. *J. Cardio.* **1994**, *24*, 293-298.
- Pissarek M. et al. Relative uptake, metabolism, and β -receptor binding of (1R,2S)-4-¹⁸F-fluorometaraminol and ¹²³I-MIBG in normotensive and spontaneously hypertensive rats. *J. Nucl. Med.* **2002**, *43*, 366-373.

**FC-2971 TET (L-FET precursor)**

O-(2-Tosylethyl)-N-trityl-L-tyrosine *t*-butyl ester

[478037-15-9]

C₄₁H₄₃NO₆S MW 677.85

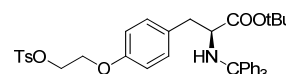
¹H NMR, purity
>95% (HPLC)

Order Unit

12 mg: FC-2971-12

References

- Hamacher K et al. Efficient routine Production of the ¹⁸F-labelled amino acid O-(2-[¹⁸F]fluoroethyl)-L-tyrosine. *Appl. Radiat. Isotop.* **2002**, *57*, 853-856.

**FC-2972 L-FET (TFA salt)**

O-(2-Fluoroethyl)-L-tyrosine trifluoroacetate salt

L-FET free base: [854750-33-7]

C₁₁H₁₄FN₃O₃ · CF₃COOH MW 341.25

¹H NMR, purity
>95% (HPLC)

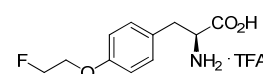
Order Unit

1 mg: FC-2972-1

10 mg: FC-2972-10

References

- Hamacher K et al. Efficient routine Production of the ¹⁸F-labelled amino acid O-(2-[¹⁸F]fluoroethyl)-L-tyrosine. *Appl. Radiat. Isotop.* **2002**, *57*, 853-856.
- Hamacher K et al. Convenient synthesis of n.c.a. O-(2-[¹⁸F]fluoroethyl)-L-tyrosine. *J. Labelled Compd. Radiopharm.* **2001**, *44*, 855.

**FC-2973 D-FET (TFA salt)**

O-(2-Fluoroethyl)-D-tyrosine trifluoroacetate salt

D-FET free base: [223463-90-9]

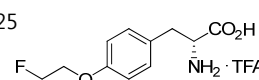
C₁₁H₁₄FN₃O₃ · CF₃COOH MW 341.25

¹H NMR, purity
>95% (HPLC)

Order Unit

1 mg: FC-2973-1

10 mg: FC-2973-10



References

-Wester H. J. et al. Synthesis and radiopharmacology of O-(2-[¹⁸F]fluoroethyl)-L-tyrosine for tumor imaging. *J. Nucl. Med.* **1999**, *40*, 205-212.

FC-3201 FBT precursor

(-)-(R,R)-Trozamicol

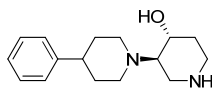
[147590-16-7]

C₁₆H₂₄N₂O MW 260.37

¹H NMR

>95% (HPLC)

Order Unit

**FC-3202 FBT authentic**

(-)-(R,R)-4-Fluorobenzyltrozamicol

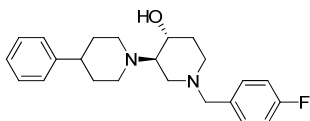
[200814-90-0]

C₂₃H₂₉FN₂O MW 368.49

¹H NMR

>95% (HPLC)

Order Unit

**FC-3301 L,L-EC**

L,L-Ethylene dicystein diacid dihydrochloride

[14344-48-0]

C₈H₁₆N₂O₄S₂ · 2 HCl MW 341.28

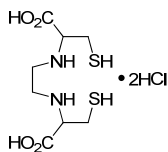
¹H NMR, MP

>95% (HPLC)

Order Unit

References

-Liu F. et al. 99mTc complex conjugated to insulin: CNS radio-pharmaceuticals design based on principles of blood-brain barrier transport vector. *Chinese Sci. Bull.* **2005**, *50*, 2297-2301.

**FC-3401 Succinimidyl-Hynic hydrochloride**

Succinimidyl-Hynic hydrochloride

[133081-27-3]

C₁₀H₁₀N₄O₄ · HCl MW 286.67

¹H NMR

>95%

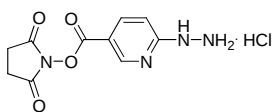
Order Unit

10 mg: FC-3401-10

50 mg: FC-3401-50

References

-Michael J. Abrams et al. Technetium-99m-Human Polyclonal IgG Radiolabeled via the Hydrazino Nicotinamide Derivative for Imaging Focal Sites of Infection in Rats. *J. Nucl. Med.* **1990**, *31*, 2022-2028

**FC-3402 Succinimidyl-N-Boc-Hynic**

Succinimidyl-N-Boc-Hynic

[133081-26-2]

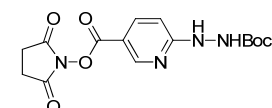
C₁₅H₁₈N₄O₆ MW 350.33

¹H NMR

>95%

Order Unit

10 mg: FC-3402-10



100 mg: FC-3402-100

References

-Michael J. Abrams et al. Technetium-99m-Human Polyclonal IgG Radiolabeled via the Hydrazino Nicotinamide Derivative for Imaging Focal Sites of Infection in Rats. *J. Nucl. Med.* **1990**, *31*, 2022-2028

FC-3501 Mebrofenin

N-(3-Bromo-2,4,6-trimethylacetanilido)iminodiacetic acid

[78266-06-5]

C₁₅H₁₉BrN₂O₅ MW 387.23

¹H NMR, MP, purity

>95% (HPLC)

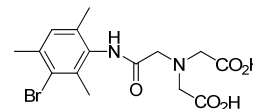
Order Unit

1 g: FC-3501-1g

10 g: FC-3501-10g

References

-Nunn A. D. et al. A structure-distribution-relationship approach leading to the development of Tc-99m mebrofenin: an improved cholecintigraphic agent. *J. Nucl. Med.* **1983**, *24*, 423-430.

**FC-3601 Tosyl-Fallypride**

(S)-2,3-Dimethoxy-5-[3-[[[(4-methylphenyl)-sulfonyl]oxy]-N-[[1-(2-propenyl)-2-pyrrolidinyl]methyl]benzamide

[166173-74-6]

C₂₇H₃₆N₂O₆S MW 516.65

¹H NMR, purity

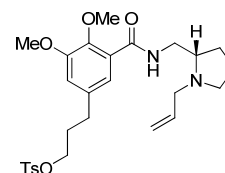
>95% (HPLC)

Order Unit

2 mg: FC-3601-2

References

-Moon, B. S.; Chi, D. Y.; Kim, S. E. et al. Highly efficient production of [¹⁸F]fallypride using small amounts of base concentration. *Appl. Radiat. Isot.* **2010**, *68*, 2279-2284.

**FC-3602 Fallypride**

(S)-5-(3-fluoropropyl)-2,3-dimethoxy-N-[[[(2S)-(2-propenyl)-2-pyrrolidinyl]methyl]benzamide

[166173-78-0]

C₂₀H₂₉FN₂O₃ MW 364.45

¹H NMR, purity

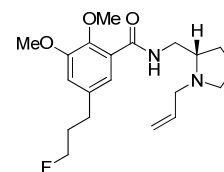
>95% (HPLC)

Order Unit

1 mg: FC-3602-1

References

-Moon, B. S.; Chi, D. Y.; Kim, S. E. et al. Highly efficient production of [¹⁸F]fallypride using small amounts of base concentration. *Appl. Radiat. Isot.* **2010**, *68*, 2279-2284.



**You can download New FutureChem Catalog
at FutureChem website.**

Visit www.futurechem.co.kr

Tropane analogs

FC-1001 Tributylstannyl- β -CT

2 β -Carbomethoxy-3 β -(4-tributylstannylphenyl)tropane

[136794-88-2]

C₂₈H₄₇NO₂Sn MW 548.34

¹H NMR, purity

>95% (HPLC)

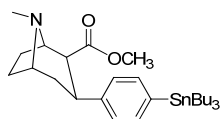
Order Unit

50 ug: FC-1001-50ug

1 mg: FC-1001-1

References

- Innis R. et al. Single photon emission computed tomography imaging of monoamine reuptake sites in primate brain with [¹²³I]CIT. *Eur. J. Pharmacol.* **1991**, *200*, 369–370.
- Laruelle M. et al. SPECT imaging of dopamine and serotonin transporters with [¹²³I] β -CIT: pharmacological characterization of brain uptake in nonhuman primates. *Synapse* **1993**, *13*, 295–309.
- Juh R. et al. Quantification analysis of [¹²³I]-IPT single photon emission computed tomography uptake in the striatum of parkinsonism with the standard magnetic resonance template. *Psychiat. Clin. Neuros* **2006**, *60*, 18–28.
- Kim C. H. et al. Dopamine Transporter Density in the Basal Ganglia in Obsessive-Compulsive Disorder, Measured with [¹²³I]IPT SPECT before and after Treatment with Serotonin Reuptake Inhibitors. *Neuropsychobiology* **2007**, *55*, 156–162.
- Henricus G. et al. Serotonin transporter binding with [¹²³I] β -CIT SPECT in major depressive disorder versus controls: effect of season and gender. *Eur. J. Nucl. Med. Mol. Imaging* **2009**, *36*, 841–849.



FC-1002 IPT precursor

N-[(*E*)-3-(Tri-*n*-butylstannyl)-propen-1-yl]-2-carbomethoxy-(4-chlorophenyl)tropane

[155509-50-5]

C₃₀H₄₈ClNO₂Sn MW 608.87

¹H NMR, purity

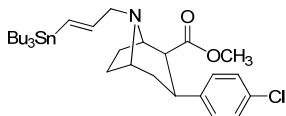
>95% (HPLC)

Order Unit

50 ug: FC-1002-50ug

References

- Joo-Hyuk Im et al. Differential patterns of dopamine transporter loss in the basal ganglia of progressive palsy and Parkinson's disease: Analysis with [¹²³I]IPT single photon emission computed tomography. *J. Neurological Sci.* **2006**, *244*, 103–109.



FC-1003 IPT authentic

N-(3-Iodopropen-1-yl)-2-carbomethoxy-3-(4-chlorophenyl)tropane

[155509-53-8]

C₁₈H₂₁ClINO₂ MW 445.72

¹H NMR, purity

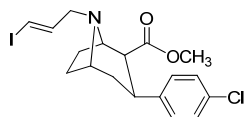
>95% (HPLC)

Order Unit

1 mg: FC-1003-1

References

- Joo-Hyuk Im et al. Differential patterns of dopamine transporter loss in the basal ganglia of progressive palsy and Parkinson's disease: Analysis with



[¹²³I]IPT single photon emission computed tomography. *J. Neurological Sci.* **2006**, *244*, 103–109.

FC-1004 Nor- β -CIT

(-)-2 β -Carbomethoxy-3 β -(4-iodophenyl)nortropane

[136794-87-1]

C₁₅H₁₈INO₂ MW 371.21

¹H NMR, purity

>95% (HPLC)

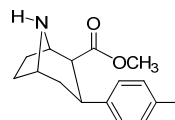
Order Unit

1 mg: FC-1004-1

10 mg: FC-1004-10

References

- Muller L. et al. [¹¹C]-beta-CIT, a cocaine analogue. Preparation, autoradiography and preliminary PET investigations. *Nucl. Med. Biol.* **1993**, *20*, 249–255.
- Ametamey S. M et al. Synthesis of nor-beta-CIT, beta-CIT and trimethylstannyl-beta-CT. *Nucl. Med. Biol.* **1995**, *22*, 959–964.



FC-1005 β -CIT authentic

2 β -Carbomethoxy-3 β -(4-iodophenyl)tropane

[135416-43-2]

C₁₆H₂₀INO₂ MW 385.24

¹H NMR, purity

>95% (HPLC)

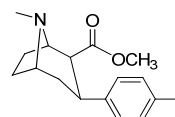
Order Unit

1 mg: FC-1005-1

10 mg: FC-1005-10

References

- Muller L. et al. [¹¹C]-beta-CIT, a cocaine analogue. Preparation, autoradiography and preliminary PET investigations. *Nucl. Med. Biol.* **1993**, *20*, 249–255.
- Ametamey S. M et al. Synthesis of nor-beta-CIT, beta-CIT and trimethylstannyl-beta-CT. *Nucl. Med. Biol.* **1995**, *22*, 959–964.



FC-1022 FP-CIT (Ioflupane) authentic

N-3-Fluoropropyl-2 β -carbomethoxy-3 β -(4-iodophenyl)nortropane

[155797-99-2]

C₁₈H₂₃FINO₂ MW 431.28

¹H NMR, purity

>95% (HPLC)

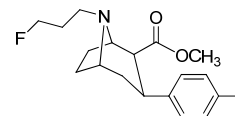
Order Unit

1 mg: FC-1022-1

5 mg: FC-1022-5

References

- Dae Yoon Chi et al. One-step high-radiochemical-yield synthesis of [¹⁸F]FP-CIT using a protic solvent system. *Nuclear Medicine and Biology* **2007**, *34*, 345–351.
- Dae Yoon Chi et al. New automated synthesis of [¹⁸F]FP-CIT with base amount control affording high and stable radiochemical yield: a 1.5-year production report. *Nuclear Medicine and Biology* **2011**, *38*, 593–597.



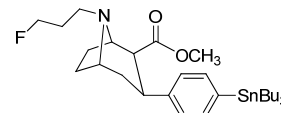
FC-1023 FP-CIT Tin precursor (Ioflupane precursor)

N-3-Fluoropropyl-2 β -carbomethoxy-3 β -(4-tributyltin)nortropane

[479642-48-3]

C₃₀H₅₀FNO₂Sn MW 594.43

¹H NMR, purity



>95% (HPLC)

Order Unit

50 ug: FC-1023-50ug

References

- Booij J. et al. Dopamine transporter imaging with [123 I]FP-CIT SPECT: potential effects of drugs. *Eur. J. Nucl. Med. Mol. Imaging* **2008**, *35*, 424-438.
- Stoessl A. J. Radionuclide scanning to diagnose Parkinson's disease: is it cost-effective? *Nat. Rev. Neurol.* **2009**, *5*, 10-11.

FC-1024 FP-CIT Tosylate precursor

N-3-*p*-Toluenesulfonyloxypropyl-2 β -carbomethoxy-3 β -(4-iodophenyl)nortropane

[186381-39-5]

C₂₅H₃₀INO₅S MW 583.48

¹H NMR, purity

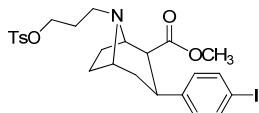
>95% (HPLC)

Order Unit

4 mg: FC-1024-4

References

- Dae Yoon Chi et al. One-step high-radiochemical-yield synthesis of [18 F]FP-CIT using a protic solvent system. *Nuclear Medicine and Biology* **34**, **2007**, 345-351.

**FC-1025 FP-CIT azetidinium salt**

(1'R, 2'S, 3'S, 5'S)-3'-(4-iodophenyl)-2'-(methoxycarbonyl)spiro [azetidine-1,8'-bicyclo[3,2,1]octan]-1-ium *p*-toluenesulfonate

C₂₅H₃₀INO₅S MW 583.48

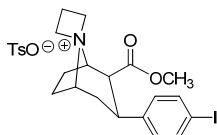
¹H NMR, purity

>95% (HPLC)

Order Unit

4 mg: FC-1025-4

10 mg: FC-1025-10

**FC-2001 Nor- β -CFT**

(-)-2 β -Carbomethoxy-3 β -(4-fluorophenyl)nortropane

[127648-30-0]

C₁₅H₁₈FNO₂ MW 263.31

¹H NMR, purity

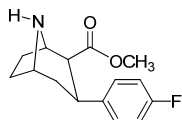
>95% (HPLC)

Order Unit

1 mg: FC-2001-1

References

- Dannals R. F. et al. Synthesis of a radiotracer for studying dopamine uptake site in vivo using PET: (2 β -carbomethoxy-3 β -(*p*-fluorophenyl)-[N- 11 C-methyl]tropane) ([11 C]CFT or [11 C]WIN 35,428). *J. Label. Compd. Radiopharm.* **1993**, *20*, 249-255.
- Wong D. F. et al. In vivo imaging of baboon and human dopamine transporters by positron emission tomography using [11 C]WIN 35,428. *Synapse* **1993**, *15*, 130-142.
- Harada N. et al. Potential of [18 F] β -CFT-FE (2 β -carbomethoxy-3 β -(4-fluorophenyl)-8-(2-[18 F]fluoroethyl)nortropane) as a dopamine transporter ligand: A PET study in the conscious monkey brain. *Synapse* **2004**, *54*, 37-45.

**FC-2002 β -CFT authentic**

(-)-2 β -Carbomethoxy-3 β -(4-fluorophenyl)tropane

[50370-56-4]

C₁₆H₂₀FNO₂ MW 277.33

¹H NMR, purity

>95% (HPLC)

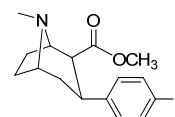
Order Unit

1 mg: FC-2002-1

10 mg: FC-2002-10

References

- Dannals R. F. et al. Synthesis of a radiotracer for studying dopamine uptake site in vivo using PET: (2 β -carbomethoxy-3 β -(*p*-fluorophenyl)-[N- 11 C-methyl]tropane) ([11 C]CFT or [11 C]WIN 35,428). *J. Label. Compd. Radiopharm.* **1993**, *20*, 249-255.
- Wong D. F. et al. In vivo imaging of baboon and human dopamine transporters by positron emission tomography using [11 C]WIN 35,428. *Synapse* **1993**, *15*, 130-142.
- Harada N. et al. Potential of [18 F] β -CFT-FE (2 β -carbomethoxy-3 β -(4-fluorophenyl)-8-(2-[18 F]fluoroethyl)nortropane) as a dopamine transporter ligand: A PET study in the conscious monkey brain. *Synapse* **2004**, *54*, 37-45.

**Custom Synthesis**

Don't worry about custom synthesis.

We provide the highest quality and reasonable price

- Custom designed Peptides
- Carbohydrates
- PET/SPECT standard compounds
- Dye conjugated compounds
- Ionic Liquids
- Etc.

Contact to FutureChem

TEL : +82-2-3010-8515, 8517

FAX : +82-2-3010-8516

E-mail : sales@futurechem.co.kr

Website: <http://www.futurechem.co.kr>

PEPTIDES

-RGD peptides

ApoPep-1

-Custom synthesis

etc.

*Ultra high purity is possible and all product is lyophilized
and stored at – 20 °C deep freezer.*

Product is provided with CoA (HPLC, MS)

FC-2201 Protected cyclic RGDyK(NH₂)

Protected cyclic Arg(Pbf)-Gly-Asp(O^tBu)-D-Tyr(O^tBu)-Lys(NH₂)
[903518-34-3]

C₄₈H₇₃N₉O₁₁S

MW 984.21

¹H NMR, MS, purity

>95% (HPLC)

Order Unit

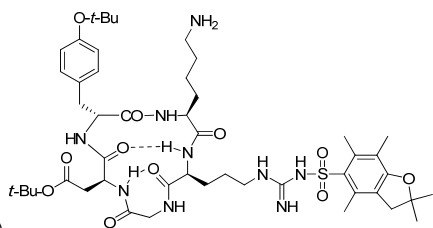
(ask us for more details)

20 mg: FC-2201-20

100 mg: FC-2201-100

References

- Roland Haubner et al. Radiolabeled α_vβ₃ Integrin Antagonists: A New Class of Tracers Tumor Targeting. *J. Nucl. Med.* **1999**, 40, 1061



Order Unit

(ask us for more details)

10 mg: FC-2204-10

50 mg: FC-2204-50

FC-2205 Azido cyclic RGDyK

Azido-cyclic Arg-Gly-Asp-D-Tyr-Lys

C₃₅H₄₆N₁₂O₉ · CF₃COOH MW 892.69

¹H NMR, MS, purity

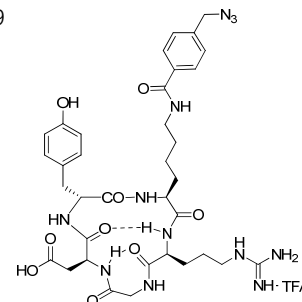
>95% (HPLC)

Order Unit

(ask us for more details)

5 mg: FC-2205-5

10 mg: FC-2205-10



References

-Sirion, U.; Kim, H. J.; Lee, J. H.; Seo, J. W.; Lee, B. S.; Lee, S. J.; Oh, S. J.; Chi, D. Y. An efficient F-18 labeling method for PET study: Huisgen 1,3-dipolar cycloaddition of bioactive substances and F-18-labeled compounds. *Tetrahedron Lett.* **2007**, 48, 3953-3957.

-Li, Z.-B. et al. Click Chemistry for ¹⁸F-Labeling of RGD Peptides and microPET Imaging of Tumor Integrin αvβ3 Expression. *Bioconjugate Chem.* **2007**, 18, 1987-1994.

-Colombo M. et al. Click Chemistry for the Synthesis of RGD-Containing Integrin Ligands. *Molecules* **2010**, 15, 178-197.

-Jean N. Dasilva et al. A fast, simple, and reproducible automated synthesis of [¹⁸F]FPyKYNE-c(RGDyK) for α_vβ₃ receptor positron emission tomography imaging. *J. Labeled Compd. Radiopharm.* **2012**, 55, 57-60.

FC-2202 Deprotected cyclic RGDyK

Cyclic Arg-Gly-Asp-D-Tyr-Lys

[250612-42-1]

C₂₇H₄₁N₉O₈ · (CF₃COOH)₂

MW 847.71

¹H NMR, MS, purity

>98% (HPLC)

Order Unit

(ask us for more details)

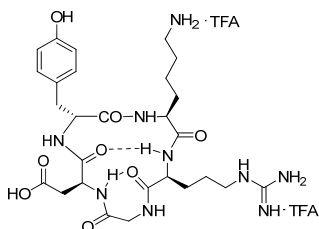
10 mg: FC-2202-10

50 mg: FC-2202-50

References

-Kyeongsoon Park et al. Tumor Endothelial Cell Targeted Cyclic RGD-modified Heparin Derivatives: Inhibition of Angiogenesis and Tumor Growth. *Pharmaceutical Research* **2008**, 25, 2786- 2798.

-Yun-Sang Lee, Dae Yoon Chi et al. An improved method of ¹⁸F peptide labeling: hydrazone formation with HYNIC-conjugated c(RGDyK). *Nucl. Med. Biol.* **2006**, 33, 677-683.

**FC-2203 Protected cyclic RGDfK(NH₂)**

Protected cyclic Arg(Pbf)-Gly-Asp(O^tBu)-D-Phe-Lys(NH₂)

[226559-04-2]

C₄₄H₆₅N₉O₁₀S

MW 912.11

¹H NMR, MS, purity

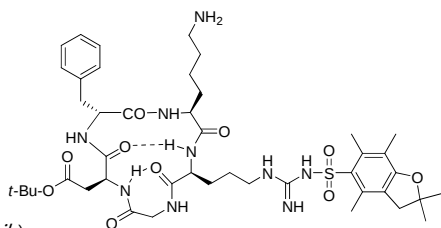
>95% (HPLC)

Order Unit

(ask us for more details)

20 mg: FC-2203-20

100 mg: FC-2203-100

**FC-2204 Deprotected cyclic RGDfK**

Cyclic Arg-Gly-Asp-D-Phe-Lys

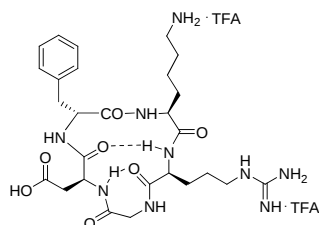
[500577-51-5]

C₂₇H₄₁N₉O₇ · (CF₃COOH)₂

MW 831.71

¹H NMR, MS, purity

>98% (HPLC)

**FC-2206 Propiolic cyclic RGDyK**

Propiolic-cyclic Arg-Gly-Asp-D-Tyr-Lys

C₃₀H₄₁N₉O₉ · CF₃COOH

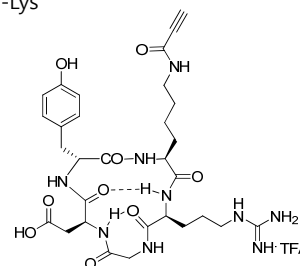
MW 785.69

¹H NMR, MS, purity

>90% (HPLC)

Order Unit

(ask us for more details)

**FC-2209 Pentynoic cyclic RGDyK**

Pentynoic-cyclic Arg-Gly-Asp-D-Tyr-Lys

C₃₂H₄₅N₉O₉ · CF₃COOH

MW 813.77

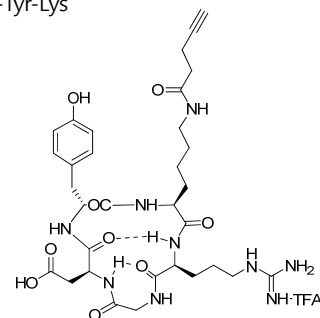
MS, purity

>95% (HPLC)

Order Unit

5 mg: FC-2209-5

10 mg: FC-2209-10



References

-Sirion, U.; Kim, H. J.; Lee, J. H.; Seo, J. W.; Lee, B. S.; Lee, S. J.; Oh, S. J.; Chi, D. Y. An efficient F-18 labeling method for PET study: Huisgen 1,3-dipolar cycloaddition of bioactive substances and F-18-labeled compounds. *Tetrahedron Lett.* **2007**, 48, 3953-3957.

FC-2210 Protected azido cyclic RGDfKProtected azido cyclic Arg(Pbf)-Gly-Asp(O^tBu)-D-Phe-LysC₅₂H₇₀N₁₂O₁₁S

MW 1071.25

¹H NMR, MS, purity

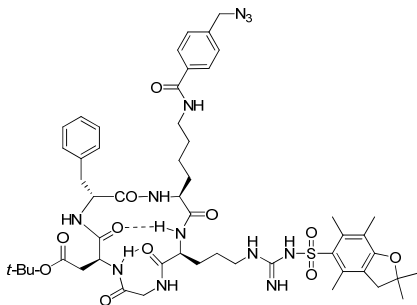
>95% (HPLC)

Order Unit

(ask us for more details)

10 mg: FC-2210-10

100 mg: FC-2210-100

**FC-2221 NOTA-cyclic RGDyK**

Cyclic Arg-Gly-Asp-D-Tyr-Lys-NOTA

C₄₇H₆₇N₁₃O₁₄S · CF₃CO₂H

MW 1184.18

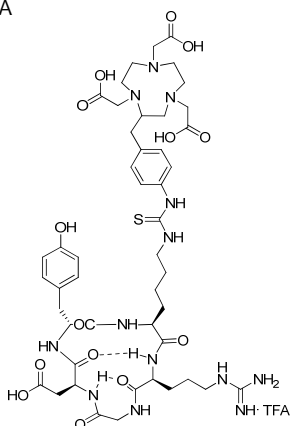
MS, purity

>95% (HPLC)

Order Unit

1 mg: FC-2221-1

10 mg: FC-2221-10



References

-Jae Min Jeong et al. Preparation of a Promising Angiogenesis PET Imaging Agent 68Ga-Labeled c(RGDyK)-Isothiocyanatobenzyl-1,4,7-Triazacyclononane-1,4,7-Triacetic Acid and Feasibility Studies in Mice, *J. Nucl. Med.* **2008**, *49*, 830-836.

-Liu Z. et al. ⁶⁸Ga-labeled NOTA-RGD-BBN peptide for dual integrin and GRPR-targeted tumor imaging. *Eur. J. Nucl. Med. Mol. Imaging* **2009**, *36*, 1483-1494.

FC-2222 Ga-NOTA-cyclic RGDyK

Cyclic Arg-Gly-Asp-D-Tyr-Lys-NOTA-Ga

C₄₇H₆₄GaN₁₃O₁₄S · CF₃CO₂H

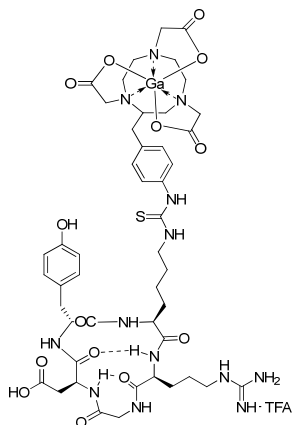
MW 1250.88

MS, purity

>95% (HPLC)

Order Unit

1 mg: FC-2222-1



References

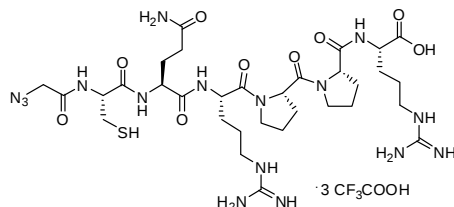
-Jae Min Jeong et al. Preparation of a Promising Angiogenesis PET Imaging Agent 68Ga-Labeled c(RGDyK)-Isothiocyanatobenzyl-1,4,7-Triazacyclononane-1,4,7-Triacetic Acid and Feasibility Studies in Mice, *J. Nucl. Med.* **2008**, *49*,

830-836.

-Liu Z. et al. ⁶⁸Ga-labeled NOTA-RGD-BBN peptide for dual integrin and GRPR-targeted tumor imaging. *Eur. J. Nucl. Med. Mol. Imaging* **2009**, *36*, 1483-1494.

FC-6101 Azido-ApoPep-1

Azidoacetyl-Cys-Gln-Arg-Pro-Pro-Arg-OH

C₃₂H₅₄N₁₆O₉S · (CF₃COOH)₃ MW 1181.01

ESI-MS, purity

>95% (HPLC)

Order Unit

1 mg: FC-6101-1

2 mg: FC-6101-2

10 mg: FC-6101-10

References

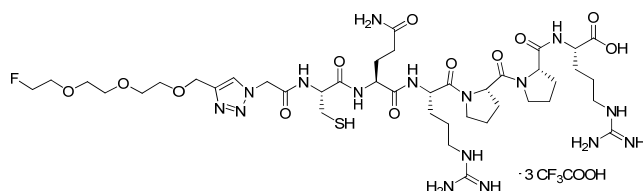
-In-San Kim et al. Molecular Imaging of Cell Death in an Experimental Model of Parkinson's Disease with a Novel Apoptosis-Targeting Peptide. *Mol. Imaging Biol.* **2012**, *14* (2), 147-155

-In-San Kim et al. In situ dose amplification by apoptosis-targeted drug delivery. *J. Control Release* **2011**, *154*, 214-217.

-In-San Kim et al. In vivo imaging of tumor apoptosis using histone H1-targeting peptide. *J. Control Release* **2010**, *148*, 283-291.

FC-6102 F-ApoPep-1

F-ApoPep-1

C₄₁H₆₉FN₁₆O₁₂S · (CF₃COOH)₃ MW 1371.22

ESI-MS, purity

>95% (HPLC)

Order Unit

1 mg: FC-6102-1

FC-9001 Pra-K-cyclic(CGNKRTRGC)

Propargylglycine-Lys-cyclic(Cys-Gly-Asn-Lys-Arg-Thr-Arg-Gly-Cys)

C₄₇H₈₂N₂₀O₁₄S₂ · (CF₃CO₂H)₆

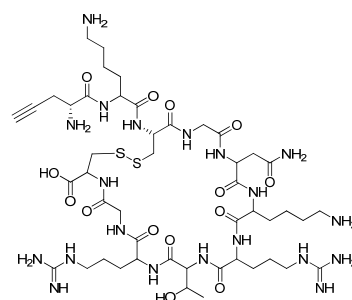
MW 1899.53

MS, purity >95% (HPLC)

Order Unit

1 mg: FC-9001-1

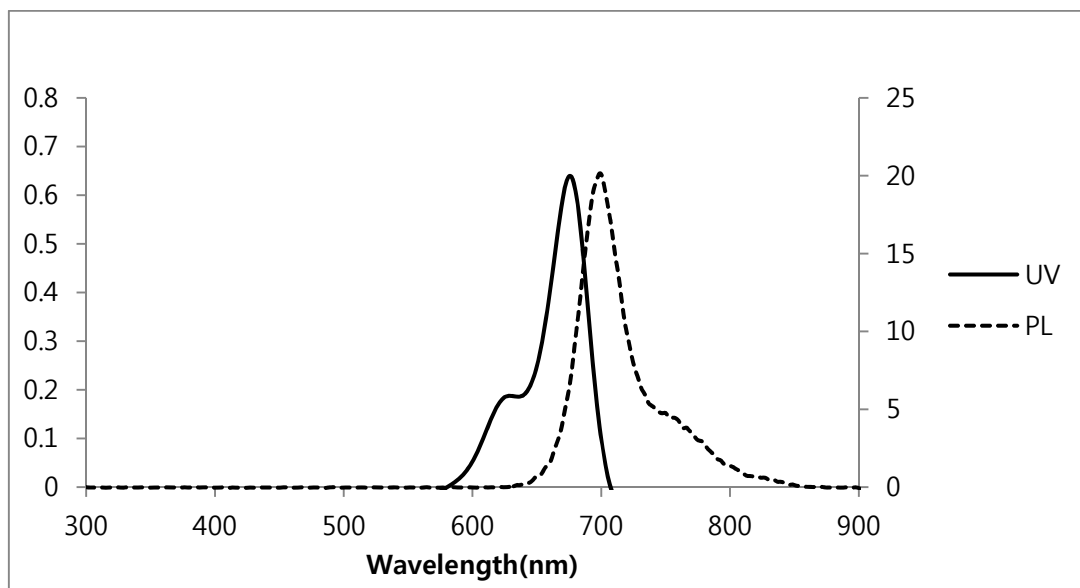
10 mg: FC-9001-10



FLUORESCENCE DYE

-Dyes

Dye-RGD



AngioFlamma675-RGD

FC-8001 R19-S

3',6'-Bis(ethylamino)-3H-spiro[benzo[c]thiophene-1,9'-xanthen]-3-one

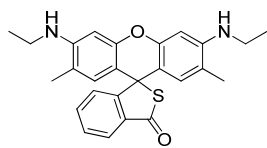
$C_{26}H_{26}N_2O_2S$ MW 430.56

1H NMR, ESI-MS, purity
>95% (HPLC)

Order Unit

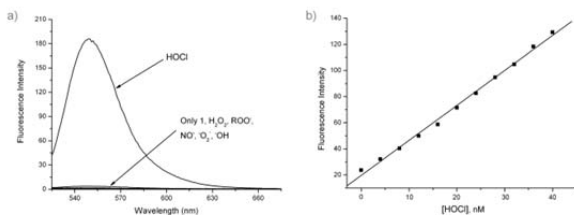
1 mg: FC-8001-1

5 mg: FC-8001-5



10 mg: FC-8001-10

High Sensitive and Selective Probe for HOCl detection



<The selectivity/sensitivity assays of R19-S for HOCl>

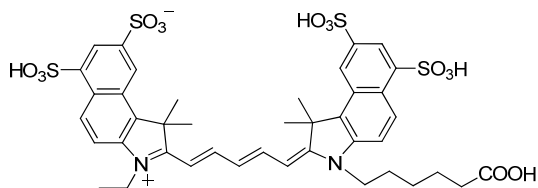
References

- Juyoung Yoon et al. A specific and sensitive method for detection of hypochlorous acid for the imaging of microbe-induced HOCl production. *Chem. Commun.* **2011**, 47, 4373.
- Juyoung Yoon et al. Hg²⁺ Selective Fluorescent and Colorimetric Sensor: Its Crystal Structure and Application to Bioimaging. *Org. Lett.* **2008**, 10, 5235.

FC-8011 FCR-675 carboxylic acid

2-((1E,3E,5E)-5-(3-(5-carboxypentyl)-1,1-dimethyl-6,8-disulfo-1H-benzo[e]indol-2(3H)-ylidene)penta-1,3-dienyl)-3-ethyl-1,1-dimethyl-6-sulfo-1H-benzo[e]indolium-8-sulfonate

$C_{41}H_{44}N_2O_{14}S_4$ MW 917.05



Absorption Wavelength: 674 nm (1 X PBS buffer, 2.73×10^{-6} M)

674 nm (Distilled water, 2.73×10^{-6} M)

678 nm (Methanol, 2.73×10^{-6} M)

Molar Extinction Coefficient

$3.81 \times 10^5 \text{ M}^{-1}\text{cm}^{-1}$ (1 X PBS buffer, 2.73×10^{-6} M)

$3.88 \times 10^5 \text{ M}^{-1}\text{cm}^{-1}$ (Distilled water, 2.73×10^{-6} M)

$3.83 \times 10^5 \text{ M}^{-1}\text{cm}^{-1}$ (Methanol, 2.73×10^{-6} M)

Emission wavelength

702 nm (1 X PBS buffer, 2.73×10^{-6} M, ex. at 674 nm)

701 nm (Distilled water, 2.73×10^{-6} M, ex. at 674 nm)

708 nm (Methanol, 2.73×10^{-6} M, ex. at 678 nm)

Order Unit

1 mg: FC-8011-1

FC-8012 FNR-675 NHS ester

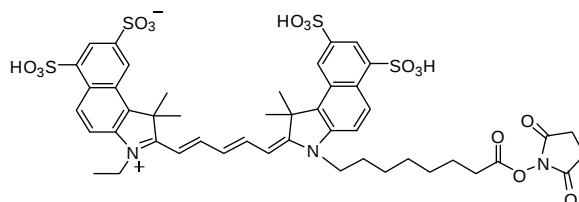
FNR-675 NHS ester

$C_{47}H_{51}N_3O_{16}S_4$ MW 1042.18

Absorption Wavelength: 675 nm (1 X PBS buffer, 4.80×10^{-6} M)

Emission wavelength: 703.5 nm (1 X PBS buffer, 4.80×10^{-6} M, ex. at 675 nm)

Molar Extinction Coefficient: $2.58 \times 10^5 \text{ M}^{-1}\text{cm}^{-1}$ (1 X PBS buffer, 4.80×10^{-6} M)



Order Unit

1 mg: FC-8012-1

5 mg: FC-8012-5

25 mg: FC-8012-25

FC-8013 AngioFlamma™675-RGD

AngioFlamma™675-RGDfK

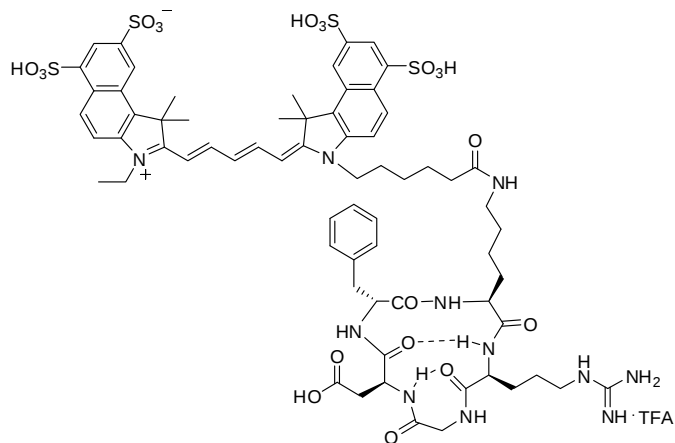
$C_{68}H_{83}N_{11}O_{29}S_4 \cdot CF_3COOH$ MW 1616.73

ESI-MS, purity

>95+% (HPLC)

Absorption Wavelength: 675 nm (Water, 4.95×10^{-6} M)

Emission wavelength: 699 nm (Water, 4.95×10^{-6} M, ex. at 749 nm)



Order Unit

0.1 mg: FC-8013-0.1

1 mg: FC-8013-1

5 mg: FC-8013-5

FC-8021 FCR-648 carboxylic acid

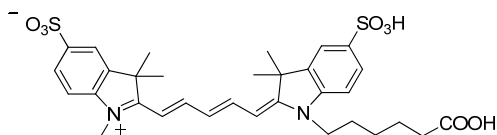
2-((1E,3E,5E)-5-(1-(5-carboxypentyl)-3,3-dimethyl-5-sulfoindolin-2-ylidene)penta-1,3-dienyl)-1-ethyl-3,3-dimethyl-3H-indolium-5-sulfonate

$C_{33}H_{40}N_2O_8S_2$ MW 656.81

Absorption Wavelength: 647 nm (1 X PBS buffer, 7.61×10^{-6} M)

Emission wavelength: 672 nm (1 X PBS buffer, 7.61×10^{-6} M, ex. at 647 nm)

Molar Extinction Coefficient: $1.88 \times 10^5 \text{ M}^{-1}\text{cm}^{-1}$ (1 X PBS buffer, 7.61×10^{-6} M)



Order Unit

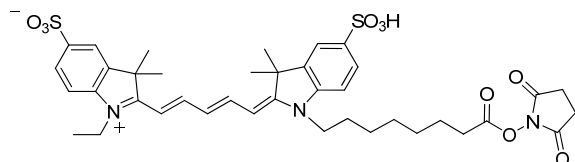
1 mg: FC-8021-1

5 mg: FC-8021-5

FC-8022 FNR-648 NHS ester

FNR-648 NHS ester

C₃₉H₄₇N₃O₁₀S₂ MW 781.93



Absorption Wavelength: 648 nm (1 X PBS buffer, 6.40 X 10⁻⁶ M)

Emission wavelength: 671 nm (1 X PBS buffer, 6.40 X 10⁻⁶ M, ex. at 648 nm)

Molar Extinction Coefficient: 7.87 X 10⁴ M⁻¹cm⁻¹ (1 X PBS buffer, 6.40 X 10⁻⁶ M)

Order Unit

1 mg: FC-8022-1

5 mg: FC-8022-5

25 mg: FC-8022-25

FC-8031 FCI-774 carboxylic acid

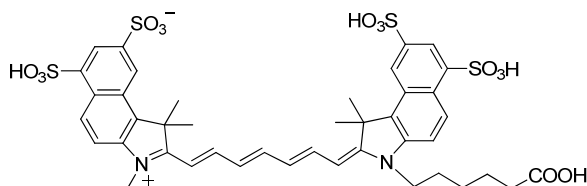
2-((1E,3E,5E,7E)-7-(3-(5-carboxypentyl)-1,1-dimethyl-6,8-disulfo-1H-benzo[e]indol-2(3H)-ylidene)hepta-1,3,5-trienyl)-1,1,3-trimethyl-6-sulfo-1H-benzo[e]indolium-8-sulfonate

C₄₂H₄₄N₂O₁₄S₄ MW 929.06

Absorption Wavelength: 774 nm (1 X PBS buffer, 1.02 X 10⁻⁵ M)

Emission wavelength: 815 nm (1 X PBS buffer, 1.02 X 10⁻⁵ M, ex. at 774 nm)

Molar Extinction Coefficient: 1.74 X 10⁵ M⁻¹cm⁻¹ (1 X PBS buffer, 1.02 X 10⁻⁵ M)



Order Unit

1 mg: FC-8021-1

5 mg: FC-8021-5

FC-8032 FNI-774 NHS ester

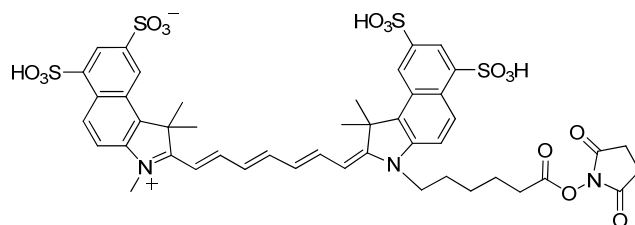
FNI-774 NHS ester

C₄₆H₄₇N₃O₁₆S₄ MW 1026.14

Absorption Wavelength: 774 nm (1 X PBS buffer, 7.81 X 10⁻⁶ M)

Emission wavelength: 806 nm (1 X PBS buffer, 7.81 X 10⁻⁶ M, ex. at 774 nm)

Molar Extinction Coefficient: 1.13 X 10⁵ M⁻¹cm⁻¹ (1 X PBS buffer, 7.81 X 10⁻⁶ M)



Order Unit

1 mg: FC-8032-1

5 mg: FC-8032-5

25 mg: FC-8032-25

Contact to FutureChem

We will reply within 12 hours after getting inquiries, orders and any other questions

FutureChem Co. Ltd.,

6 F Asan Educational Research Building, Asan Medical Center 388-1 Pungnap-2-dong songpagu, Seoul 138-736, South Korea

TEL : +82-2-3010-8515, 8517

FAX : +82-2-3010-8516

E-mail : sales@futurechem.co.kr

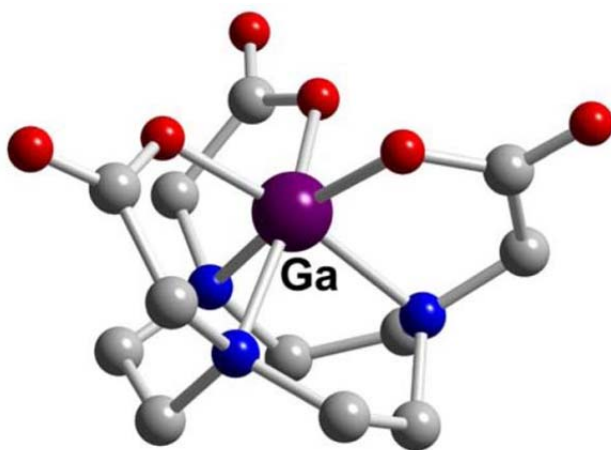
Website: <http://www.futurechem.co.kr>

METAL CHELATING AGENTS

-Bifunctional Chelating Agents

DTPA, NOTA, NODA, DOTA derivatives

-Functionalised Macrocycles



Ga-NOTA coordination

Ref. Wadas, T. J. et al, *Chem. Rev.* **2010**, *110*, 2858-2902

FC-2101 (p-SCN-Bn)-DTPA

1-(p-Isothiocyanatobenzyl)diethylenetriaminepentaacetic acid trihydrochloride

[102650-30-6]

C₂₂H₂₈N₄O₁₀S · 3 HCl MW 649.9

MS, HPLC

>94% (HPLC)

Order Unit

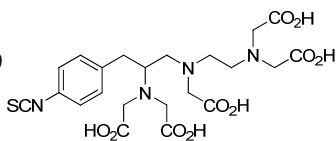
100 mg: FC-2101-100

500 mg: FC-2101-500

References

- Kosmas C. et al. Anti-chelate antibodies after intraperitoneal yttrium-90-labeled monoclonal antibody immunoconjugates for ovarian cancer therapy. *J. Nucl. Med.* **1995**, 36, 746-753.

- Mishra A. K. et al. Preparation and comparative evaluation of ^{99m}Tc-labeled 2-iminothiolane modified antibodies and CITC-DTPA immunoconjugates of anti-EGF-receptor antibodies. *Methods Find. Exp. Clin. Pharmacol.* **2002**, 24, 654-660.

**FC-2121 (p-SCN-Bn)-NOTA**

2-(p-Isothiocyanatobenzyl)-1,4,7-triazacyclononane-N,N',N''-triacetic acid trihydrochloride

[147597-66-8]

C₂₀H₂₆N₄O₆S · 3 HCl MW 559.9

MS, HPLC

>95% (HPLC)

Order Unit

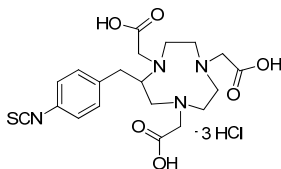
50 mg: FC-2121-50

100 mg: FC-2121-100

References

-Jae Min Jeong et al. Preparation of a Promising Angiogenesis PET Imaging Agent ⁶⁸Ga-Labeled c(RGDyK)-Isothiocyanatobenzyl-1,4,7-Triazacyclononane-1,4,7-Triacetic Acid and Feasibility Studies in Mice, *J. Nucl. Med.* **2008**, 49, 830-836.

-Lathika Hoigebazar, Jae Min Jeong et al. Synthesis and Characterization of Nitroimidazole Derivatives for ⁶⁸Ga-Labeling and Testing in Tumor Xenografted Mice. *J. Med. Chem.* **2010**, 53, 6378-6385.

**FC-2122 (p-SCN-Bn)-NOTA - Ga complex**

(p-SCN-Bn)-NOTA - Ga

C₂₀H₂₃N₄O₆S · Ga MW 517.21

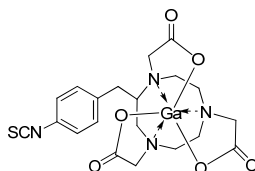
HPLC, MS

>95%

Order Unit

1 mg: FC-2122-1

10 mg: FC-2122-10

**FC-2123 NO2A(tBu)**

Di-tert-butyl 2,2'-(1,4,7-triazacyclononane-1,4-dilyl)diacetate [174137-97-4]

C₁₈H₃₅N₃O₄ MW 357.49

¹H NMR, MS

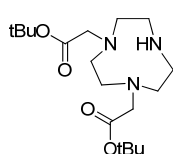
>95%

Order Unit

100 mg: FC-2123-100

500 mg: FC-2123-500

1 g: FC-2123-1g



References

-McBride W. J. et al. Improved ¹⁸F Labeling of Peptides with a Fluoride-Aluminium-Chelate Complex. *Bioconjugate Chem.* **2010**, 21 (7), 1331-1340

FC-2124 NOTA(tBu)₂

2-(4,7-Bis(2-tert-butoxy)-2-oxoethyl)-1,4,7-triazonane-1-yl)acetic acid [1161415-28-6]

C₂₀H₃₇N₃O₆ MW 415.52

¹H NMR, MS

>95%

Order Unit

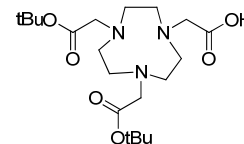
100 mg: FC-2124-100

500 mg: FC-2124-500

1 g: FC-2124-1g

References

-McBride, W. J. et al. Improved ¹⁸F Labeling of Peptides with a Fluoride-Aluminium-Chelate Complex. *Bioconjugate Chem.* **2010**, 21 (7), 1331-1340

**FC-2125 NOTA-NHS ester**

2,2'-(7-(2-((2,5-dioxopyrrolidin-1-yl)oxy)-2-oxoethyl)-1,4,7-triazonane-1,4-dilyl)diacetic acid

C₁₆H₂₄N₄O₈S · HFP₆ · CF₃COOH

MW 400.38

¹H NMR, MS

>95%

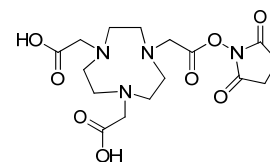
(Made in France)

Order Unit

100 mg: FC-2125-100

500 mg: FC-2125-500

1 g: FC-2125-1g

**FC-2126 DiBoc-TACN**

Di-tert-butyl 1,4,7-triazacyclononane-1,4-dicarboxylate [174138-01-3]

C₁₆H₃₁N₃O₄ MW 329.44

¹H NMR, MS

>95%

Order Unit

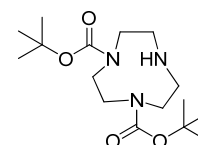
100 mg: FC-2126-100

500 mg: FC-2123-500

1 g: FC-2126-1g

References

-Chong, H. S. et al. Rational Design and Generation of a Bimodal Bifunctional Ligand for Antibody-Targeted Radiation Cancer Therapy. *J. Med. Chem.* **2008**, 51 (1), 118-125.

**FC-2131 (p-SCN-Bn)-DOTA**

2-(4-Isothiocyanatobenzyl)-1,4,7,10-tetraazacyclododecane-1,4,7,10-tetraacetic acid [127985-74-4]

C₂₄H₃₃N₅O₈S · 2.5 HCl · 2.5 H₂O

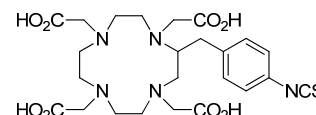
MW 688.0

FTIR, HPLC

>94%

(Made in USA)

Order Unit



100 mg: FC-2131-100

500 mg: FC-2131-500

References

-Sampath, L. et al. Detection of Cancer Metastased with a Dual-labeled Near Infrared/Positron Emission Tomography Imaging Agent. *Translational Oncology* **2010**, 3, 307-317

FC-2132 DO3A-tBu-ester

tert-Butyl 2,2',2''-(1,4,7,10-tetraazacyclododecane-1,4,7-triyl)triacetate

[122555-91-3]

 $C_{26}H_{50}N_4O_6$ MW 514.70 1H NMR, MS

>95%

Order Unit

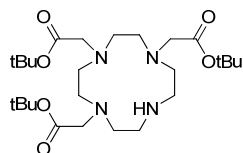
100 mg: FC-2132-100

500 mg: FC-2132-500

1 g: FC-2132-1g

References

-Marom, H. et al. Toward Development of Targeted Nonsteroidal Antiandrogen-1,4,7,10-Tetraazacyclododecane-1,4,7,10-tetraacetic Acid-Gadolinium Complex for Prostate Cancer Diagnostics. *J. Med. Chem.* **2010**, 53 (17), 6316-6325.

**FC-2133 DOTA-tris (tBu) ester**

2-(4,7,10-tris(2-*tert*-butoxy-2-oxoethyl)-1,4,7,10-tetraazacyclododecan-yl)acetic acid

[137076-54-1]

 $C_{28}H_{52}N_4O_8$ MW 572.70 1H NMR, MS

>95%

Order Unit

100 mg: FC-2133-100

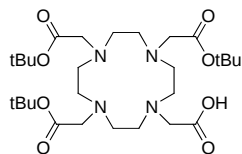
1 g: FC-2133-1g

References

-Ginj, M. et al. Synthesis of trifunctional somatostatin based derivatives for improved cellular and subcellular uptake. *Tetrahedron Letters* **2005**, 46 (16), 2821-2824.

-Dijkgraaf, I. et al. Synthesis of DOTA-conjugated multivalent cyclic-RGD peptide dendrimers *via* 1,3-dipolar cycloaddition and their biological evaluation: implications for tumor targeting and tumor imaging purposes. *Organic & Biomolecular Chemistry* **2007**, 5 (6), 935-944.

-Roosenburg, S. et al. Stabilized ^{111}In -Labeled sCCK8 Analogues for Targeting CCK2-Receptor Positive Tumors: Synthesis and Evaluation. *Bioconjugate Chem.* **2010**, 21 (4), 663-670

**FC-2134 DOTA-NHS ester**

2,2',2''-(10-(2-(2,5-dioxopyrrolidin-1-yl)oxy)-2-oxoethyl)-1,4,7,10-tetraazacyclododecane-1,4,7-triyl)triacetic acid

[170908-81-3]

 $C_{20}H_{31}N_5O_{10} \cdot HPF_6 \cdot CF_3COOH$

MW 761.5

 1H NMR

>90%

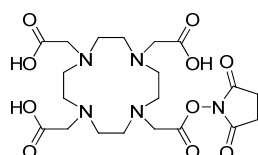
(Made in U)

Order Unit

100 mg: FC-2134-100

500 mg: FC-2134-500

1 g: FC-2134-1g



References

-Marom, H. et al. Toward Development of Targeted Nonsteroidal Antiandrogen-1,4,7,10-Tetraazacyclododecane-1,4,7,10-tetraacetic Acid-Gadolinium Complex for Prostate Cancer Diagnostics. *J. Med. Chem.* **2010**, 53 (17), 6316-6325.

FC-2135 TrisBoc-cyclen

Tri-*tert*-butyl-1,4,7,10-tetraazacyclododecane-1,4,7-tricarboxylate [175854-39-4]

 $C_{23}H_{44}N_4O_6$ MW 472.62 1H NMR

>95%

Order Unit

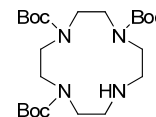
500 mg: FC-2135-500

1 g: FC-2135-1g

5 g: FC-2135-5g

References

-Ohshima, R. et al. Design and Synthesis of a Fluorescent Probe for Zn^{2+} , 5,7-Bis(N,N-dimethylaminosulfonyl)-8-hydroxyquinoline-Pendant 1,4,7,10-Tetraazacyclododecane and Zn^{2+} -Dependent Hydrolytic and Zn^{2+} -Independent Photochemical Reactivation of Its Benzenesulfonyl-Caged Derivative. *Inorg. Chem.* **2010**, 49 (3), 888-899

**FC-6095 3-Azidopropyl-NOTA**

3-Azidopropyl-NOTA

 $C_{23}H_{34}N_8O_6S$ MW 550.63 1H NMR, purity

>95% (HPLC)

Order Unit

1 mg: FC-6095-1

10 mg: FC-6095-10

50 mg: FC-6095-50

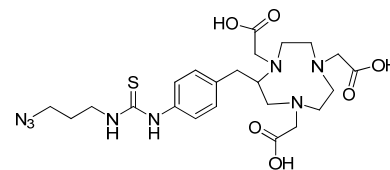
References

-Wu C. et al. Biodistribution and Catabolism of Ga-67-Labeled Anti-Tac dsFv Fragment. *Bioconjugate Chem.* **1997**, 8, 365-369.

-Prata M. et al. Structural and in vivo studies of metal chelates of Ga (III) relevant to biomedical imaging. *J. Inorg. Biochem.* **2000**, 79, 359-363.

-Hoigebazar L. et al. Synthesis and Characterization of Nitroimidazole Derivatives for 68Ga-Labeling and Testing in Tumor Xenografted Mice. *J. Med. Chem.* **2010**, 53, 6378-6385.

-Hwang D. W. et al. A Nucleolin-Targeted Multimodal Nanoparticle Imaging Probe for Tracking Cancer Cells Using an Aptamer. *J. Nucl. Med.* **2010**, 51, 98-105.

**FC-6096 Propargyl-NOTA**

Propargyl-NOTA

 $C_{23}H_{31}N_5O_6S$ MW 505.59 1H NMR, purity

>95% (HPLC)

Order Unit

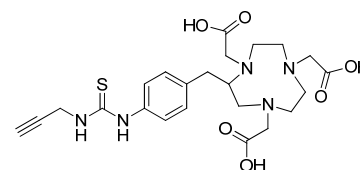
1 mg: FC-6096-1

10 mg: FC-6096-10

50 mg: FC-6096-50

References

-Wu C. et al. Biodistribution and Catabolism of Ga-67-Labeled Anti-Tac dsFv Fragment. *Bioconjugate Chem.* **1997**, 8, 365-369.



- Prata M. et al. Structural and in vivo studies of metal chelates of Ga (III) relevant to biomedical imaging. *J. Inorg. Biochem.* **2000**, 79, 359–363.
- Hoigebazar L. et al. Synthesis and Characterization of Nitroimidazole Derivatives for ⁶⁸Ga-Labeling and Testing in Tumor Xenografted Mice. *J. Med. Chem.* **2010**, 53, 6378–6385.
- Hwang D. W. et al. A Nucleolin-Targeted Multimodal Nanoparticle Imaging Probe for Tracking Cancer Cells Using an Aptamer. *J. Nucl. Med.* **2010**, 51, 98–105.

CHEMISTRY FOR YOUR FUTURE

- FutureChem

Custom Synthesis

Don't worry about custom synthesis.

We provide the highest quality and reasonable price

- Custom designed Peptides
 - Carbohydrates
 - PET/SPECT standard compounds
 - Dye conjugated compounds
 - Ionic Liquids
 - Etc.
-

Contact to FutureChem

We will reply within 12 hours after getting inquiries, orders and any other questions

FutureChem Co. Ltd.,

6 F Asan Educational Research Building, Asan Medical Center 388-1 Pungnap-2-dong songpagu, Seoul 138-736, South Korea

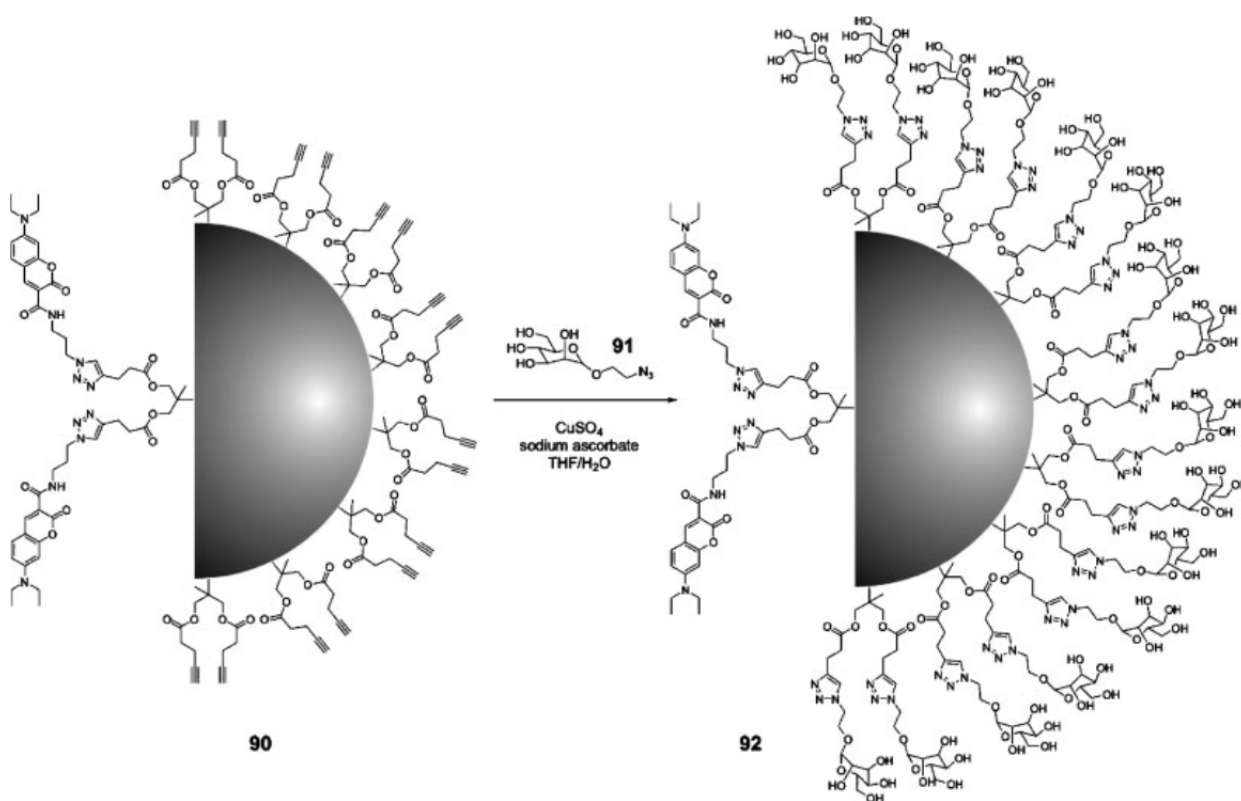
TEL : +82-2-3010-8515, 8517

FAX : +82-2-3010-8516

E-mail : sales@futurechem.co.kr

Website: <http://www.futurechem.co.kr>

CLICK CHEMICALS



Ref. *Macromol. Rapid Commun.* **2007**, *28*, 15-54

FC-6001 1,8-Diazido-3,6-dioxaoctane

1,8-Diazido-3,6-dioxaoctane

[59559-06-7]

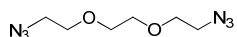
 $C_6H_{12}N_6O_2$ MW 200.20 1H NMR

>90%

Order Unit

1 g: FC-6001-1g

5 g: FC-6001-5g



[86770-68-5]

 $C_{10}H_{21}N_3O_5$ MW 263.29 1H NMR

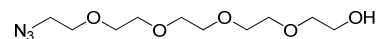
>95%

Order Unit

100 mg: FC-6032-100

1 g: FC-6032-1g

5 g: FC-6032-5g

**FC-6002 1,11-Diazido-3,6,9-trioxaundecane**

1, 11-Diazido-3,6,9-trioxaundecane

[101187-39-7]

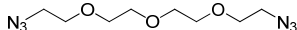
 $C_8H_{16}N_6O_3$ MW 244.25 1H NMR

>90%

Order Unit

1 g: FC-6002-1g

5 g: FC-6002-5g

**FC-6005 1-Amino-8-azido-3,6-dioxaoctane**

1-Amino-8-azido-3,6-dioxaoctane

(1,8-Diamino-3,6-dioxaoctane <5% mixture)

[166388-57-4]

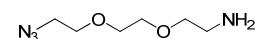
 $C_6H_{14}N_4O_2$ MW 174.20 1H NMR

>90%

Order Unit

1 g: FC-6005-1g

5 g: FC-6005-5g

**FC-6033 1,14-Diazido-3,6,9,12-tetraoxatetradecane**

1,14-Diazido-3,6,9,12-tetraoxatetradecane

[182760-73-2]

 $C_{10}H_{20}N_6O_4$ MW 288.30 1H NMR

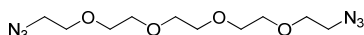
>95%

Order Unit

100 mg: FC-6033-100

1 g: FC-6033-1g

5 g: FC-6033-5g

**FC-6006 1-Amino-11-azido-3,6,9-trioxaundecane**

1-Amino-11-azido-3,6,9-trioxaundecane

(1,11-Diamino-3,6,9-trioxaundecane <5% mixture)

[134179-38-7]

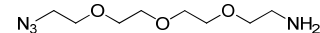
 $C_8H_{18}N_4O_3$ MW 218.25 1H NMR

>90%

Order Unit

1 g: FC-6006-1g

5 g: FC-6006-5g

**FC-6003 8-Azido-3,6-dioxa-1-octanol**

8-Azido-3,6-dioxa-1-octanol

[86520-52-7]

 $C_6H_{13}N_3O_3$ MW 175.19 1H NMR

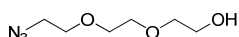
>90%

Order Unit

1 g: FC-6003-1g

5 g: FC-6003-5g

25 g: FC-6003-25g

**FC-6004 11-Azido-3,6,9-trioxa-1-undecanol**

11-Azido-3,6,9-trioxa-1-undecanol

[86770-67-4]

 $C_8H_{17}N_3O_4$ MW 219.24 1H NMR

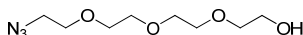
>90%

Order Unit

1 g: FC-6004-1g

5 g: FC-6004-5g

25 g: FC-6004-25g

**FC-6036 14-Azido-3,6,9,12-tetraoxa-*n*-tetradecanylamine**

14-Azido-3,6,9,12-tetraoxatetradecan-1-ylamine

(3,6,9,12-Tetraoxa-1,14-tetradecamethylene diamine <5% mixture)

[951671-92-4]

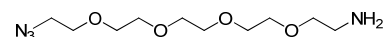
 $C_{10}H_{22}N_4O_4$ MW 262.31 1H NMR

>90%

Order Unit

100 mg: FC-6036-100

1 g: FC-6036-1g

**FC-6007 8-Azido-3,6-dioxa-1-octanol mesylate**

8-Azido-3,6-dioxa-1-octanol mesylate

[134179-43-4]

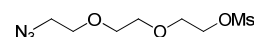
 $C_7H_{15}N_3O_5S$ MW 253.28 1H NMR

>95%

Order Unit

1 g: FC-6007-1g

5 g: FC-6007-5g

**FC-6032 14-Azido-3,6,9,12-tetraoxa-1-tetradecanol**

14-Azido-3,6,9,12-tetraoxa-1-tetradecanol

References

-Herman S. Gill et al. Preparation of ^{18}F -labeled peptides using the copper(I)-catalyzed azide-alkyne 1,3-dipolar cycloaddition *Nature Protocols* **2011**, 6, 1718-1725

References

-Herman S. Gill et al. Preparation of ^{18}F -labeled peptides using the copper(I)-catalyzed azide-alkyne 1,3-dipolar cycloaddition *Nature Protocols* **2011**, 6, 1718-1725

FC-6008 11-Azido-3,6,9-trioxa-1-undecanol mesylate

11-Azido-3,6,9-trioxa-1-undecanol mesylate

[940951-97-3]

C₉H₁₉N₃O₆S MW 297.33¹H NMR

>95%

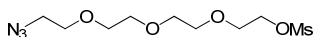
Order Unit

1 g: FC-6008-1g

5 g: FC-6008-5g

References

-Herman S. Gill et al. Preparation of ¹⁸F-labeled peptides using the copper(I)-catalyzed azide-alkyne 1,3-dipolar cycloaddition *Nature Protocols* **2011**, 6, 1718-1725



Order Unit

100 mg: FC-6035-100

1 g: FC-6035-1g

References

-Herman S. Gill et al. Preparation of ¹⁸F-labeled peptides using the copper(I)-catalyzed azide-alkyne 1,3-dipolar cycloaddition *Nature Protocols* **2011**, 6, 1718-1725

FC-6011 11-Azido-3,6,9-trioxaundecanoic acid

11-Azido-3,6,9-trioxaundecanoic acid

[172531-37-2]

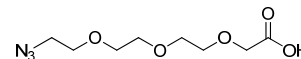
C₈H₁₅N₃O₅ MW 233.22¹H NMR

>95%

Order Unit

1 g: FC-6011-1g

5 g: FC-6011-5g

**FC-6034 14-Azido-3,6,9,12-tetraoxa-1-tetradecanol mesylate**

14-Azido-3,6,9,12-tetraoxa-1-tetradecanol mesylate

C₁₁H₂₃N₃O₇S MW 341.38¹H NMR

>95%

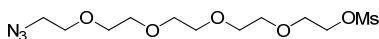
Order Unit

100 mg: FC-6034-100

1 g: FC-6034-1g

References

-Herman S. Gill et al. Preparation of ¹⁸F-labeled peptides using the copper(I)-catalyzed azide-alkyne 1,3-dipolar cycloaddition *Nature Protocols* **2011**, 6, 1718-1725

**FC-6012 14-Azido-3,6,9,12-tetraoxatetradecanoic acid**

14-Azido-3,6,9,12-tetraoxatetradecanoic acid

[201467-81-4]

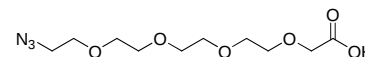
C₁₀H₁₉N₃O₆ MW 277.27¹H NMR

>95%

Order Unit

1 g: FC-6012-1g

5 g: FC-6012-5g

**FC-6009 1-Azido-8-fluoro-3,6-dioxaoctane**

1-Azido-8-fluoro-3,6-dioxaoctane

C₆H₁₂FN₃O₂ MW 177.18¹H NMR

>95%

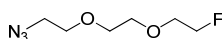
Order Unit

1 g: FC-6009-1g

5 g: FC-6009-5g

References

-Glaser M. et al. 'Click labeling' in PET radiochemistry *J. Labelled Compd Radiophar.* **2009**, 52, 407-414

**FC-6039 13-Azido-5-aza-8,11-dioxa-4-oxotridecanoic acid**

13-Azido-5-aza-8,11-dioxa-4-oxotridecanoic acid

[1189096-56-7]

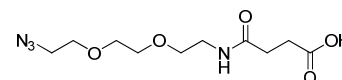
C₁₀H₁₈N₄O₅ MW 274.27¹H NMR

>95%

Order Unit

1 g: FC-6039-1g

5 g: FC-6039-5g

**FC-6010 1-Azido-11-fluoro-3,6,9-trioxaundecane**

1-Azido-11-fluoro-3,6,9-trioxaundecane

C₈H₁₆FN₃O₃ MW 221.23¹H NMR

>95%

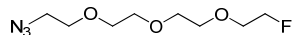
Order Unit

1 g: FC-6010-1g

5 g: FC-6010-5g

References

-Herman S. Gill et al. Preparation of ¹⁸F-labeled peptides using the copper(I)-catalyzed azide-alkyne 1,3-dipolar cycloaddition *Nature Protocols* **2011**, 6, 1718-1725

**FC-6040 16-Azido-5-aza-4-oxo-8,11,14-trioxahehexadecanoic acid**

16-Azido-5-aza-4-oxo-8,11,14-trioxahehexadecanoic acid

[1202400-17-6]

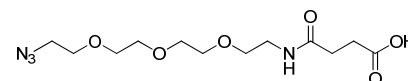
C₁₂H₂₂N₄O₆ MW 318.33¹H NMR

>95%

Order Unit

1 g: FC-6040-1g

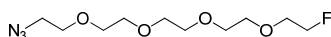
5 g: FC-6040-5g

**FC-6035 1-Azido-14-fluoro-3,6,9,12-tetraoxatetradecane**

1-Azido-14-fluoro-3,6,9,12-tetraoxatetradecane

C₁₀H₂₀FN₃O₄ MW 265.28¹H NMR

>95%

**FC-6211 1-[Boc-aminoxy]acetamido-3,6-dioxa-8-azide**

1-[Boc-aminoxy]acetamido-3,6-dioxa-8-azide

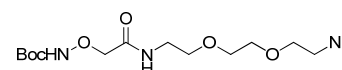
C₁₃H₂₅N₅O₆ MW 347.37¹H NMR

>95%

Order Unit

100 mg: FC-6040-100

1 g: FC-6040-1g



FC-6015 3,6,9-Trioxadodec-11-yn-1-ol mesylate

3,6,9-Trioxadodec-11-yn-1-ol mesylate

[173205-72-6]

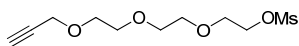
C₁₀H₁₈O₆S MW 266.31¹H NMR

>95%

Order Unit

1 g: FC-6015-1g

5 g: FC-6015-5g

**FC-6016 3,6,9,12-Tetraoxapentadec-14-yn-1-ol mesylate**

3,6,9,12-Tetraoxapentadec-14-yn-1-ol mesylate

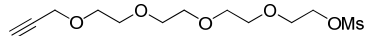
C₁₂H₂₂O₇S MW 310.36¹H NMR

>95%

Order Unit

1 g: FC-6016-1g

5 g: FC-6016-5g

**FC-6037 3,6,9,12,15-Pentaoxaoctadec-17-yn-1-ol mesylate**

3,6,9,12,15-Pentaoxaoctadec-17-yn-1-ol mesylate

[1036204-62-2]

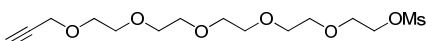
C₁₄H₂₆O₈S MW 354.42¹H NMR

>95%

Order Unit

100 mg: FC-6037-100

1 g: FC-6037-1g

**FC-6030 12-Fluoro-4,7,10-trioxa-1-dodecyne**

12-Fluoro-4,7,10-trioxa-1-dodecyne

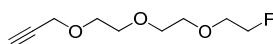
C₉H₁₅FO₃ MW 190.21¹H NMR

>95%

Order Unit

100 mg: FC-6030-100

1 g: FC-6030-1g



References

-Glaser M. et al. 'Click labeling' in PET radiochemistry *J. Labelled Compd. Radiopharm.* **2009**, 52, 407-414

FC-6031 15-Fluoro-4,7,10,13-tetraoxa-1-pentadecyne

15-Fluoro-4,7,10,13-tetraoxa-1-pentadecyne

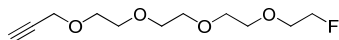
C₁₁H₁₉FO₄ MW 234.26¹H NMR

>95%

Order Unit

100 mg: FC-6031-100

1 g: FC-6031-1g



References

-Glaser M. et al. 'Click labeling' in PET radiochemistry *J. Labelled Compd. Radiopharm.* **2009**, 52, 407-414

FC-6038 18-Fluoro-4,7,10,13,16-pentaoxa-1-octadecyne

18-Fluoro-4,7,10,13,16-pentaoxa-1-octadecyne

C₁₃H₂₃FO₅ MW 278.32¹H NMR

>95%

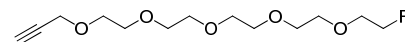
Order Unit

100 mg: FC-6038-100

1 g: FC-6038-1g

References

-Glaser M. et al. 'Click labeling' in PET radiochemistry *J. Labelled Compd. Radiopharm.* **2009**, 52, 407-414

**FC-6041 3-Azidopropanesulfonyl chloride**

3-Azidopropanesulfonyl chloride

[1034192-11-4]

C₃H₆ClN₃O₂S MW 183.62¹H NMR

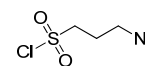
>95%

Order Unit

500 mg: FC-6041-500

1 g: FC-6041-1g

10 g: FC-6041-10g

**FC-6045 Azido-acetic acid**

2-Azidoacetic acid

[18523-48-3]

C₂H₃N₃O₂ MW 101.06¹H NMR

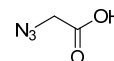
>95%

Order Unit

1 g: FC-6045-1g

5 g: FC-6045-5g

10 g: FC-6045-10g



References

-Oubera, M. et al. Synthesis and Biological Evaluation of Clicked Curcumin and Clicked KLVFFA Conjugates as Inhibitors of β -Amyloid Fibril Formation *Bioconjugate Chem.* **2009**, 20, 2123-2132

FC-6046 1-Azido-1-deoxy- β -D-galactopyranoside tetraacetate1-Azido-1-deoxy- β -D-galactopyranoside tetraacetate

[13992-26-2]

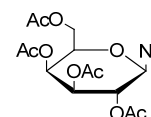
C₁₄H₁₉N₃O₉ MW 373.32¹H NMR

>95%

Order Unit

References

-Fricke, T. et al. Chemical Synthesis of Cell-Permeable Apoptosis Peptides from in vivo Produced Proteins *Bioconjugate Chem.* **2011**, 22, 1763-1767

**FC-6047 3-Azidopropylamine**

3-Azidopropylamine

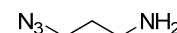
C₃H₈N₄ MW 100.12¹H NMR

>95%

Order Unit

References

-Lee, J. W. et al. Synthesis of Symmetrical and Unsymmetrical PANAM Dendrimers by Fusion between Azide- and Alkyne-Functionalized PANAM Dendrons *Bioconjugate Chem.* **2007**, 18, 579-584

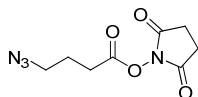
**FC-6048 Succinimidyl 4-azidobutyrate**

γ -Azidobutyric acid oxysuccinimide esterC₈H₁₀N₄O₄ MW 226.19¹H NMR

>95%

Order Unit

100 mg: FC-6048-100 500 mg: FC-6048-500 1 g: FC-6048-1g

**FC-6049 Propargyl mesylate**

Prop-2-ynyl methanesulfonate

C₄H₆O₃S MW 134.15¹H NMR

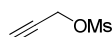
>95%

Order Unit

1 g: FC-6049-1g

References

-Saha, A. et al. Site-Specific Functionalization of Hyperbranched Polymers Using "Click" Chemistry *Macromolecules* **2009**, 42, 4028-4037

**FC-6056 Propiolic acid NHS ester**

Propiolic acid NHS ester

C₇H₅NO₄ MW 167.12¹H NMR

>95%

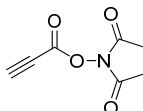
Order Unit

100 mg: FC-6056-100 1 g: FC-6056-1g

References

-Park, S. et al. One-Step, Acid Mediated Method for Modification of Glass Surfaces with *N*-Hydroxysuccinimide Esters and Its Application to the Construction of Microarrays for Studies of Biomolecular Interactions. *Bioconjugate Chem.* **2010**, 21, 1246-1253

2. Gill H. S. et al. A Modular Platform for the Rapid Site-Specific Radiolabeling of Proteins with ¹⁸F Exemplified by Quantitative Positron Emission Tomography of Human Epidermal Growth Factor Receptor. *J. Med. Chem.* **2009**, 52, 5816-5825.

**FC-6057 *N*-Propargyl maleimide***N*-Propargyl maleimideC₇H₅NO₂ MW 135.12¹H NMR

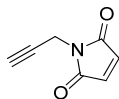
>95%

Order Unit

100 mg: FC-6057-100 1 g: FC-6057-1g

References

- Gill H. S. et al. A Modular Platform for the Rapid Site-Specific Radiolabeling of Proteins with ¹⁸F Exemplified by Quantitative Positron Emission Tomography of Human Epidermal Growth Factor Receptor. *J. Med. Chem.* **2009**, 52, 5816-5825.

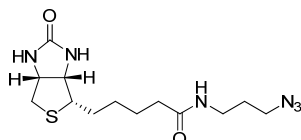
**FC-6061 (+)-Biotin azidopropylamide**

(+) -Biotin azidopropylamide

[908007-17-0]

C₁₃H₂₂N₆O₂S MW 326.42¹H NMR

>95%



Order Unit

10 mg: FC-6061-10

100 mg: FC-6061-100

1 g: FC-6061-1g

References

-Fricke, T. et al. Chemical Synthesis of Cell-Permeable Apoptosis Peptides from in vivo Produced Proteins *Bioconjugate Chem.* **2011**, 22, 1763-1767

FC-6062 (+)-Biotin-EG₄-N₃(+) -Biotin-EG₄-N₃

[875770-34-6]

C₁₈H₃₂N₆O₅S

MW 444.55

¹H NMR

>95%

Order Unit

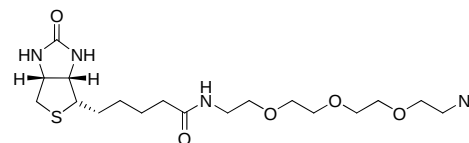
10 mg: FC-6062-10

100 mg: FC-6062-100

1 g: FC-6062-1g

References

-Fricke, T. et al. Chemical Synthesis of Cell-Permeable Apoptosis Peptides from in vivo Produced Proteins *Bioconjugate Chem.* **2011**, 22, 1763-1767

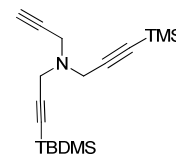
**FC-6060 *N*-[3-(*tert*-Butyldimethylsilyl)propargyl]-*N*-propargyl-*N*-(3-trimethylsilylpropargyl)amine***N*-[3-(*tert*-Butyldimethylsilyl)propargyl]-*N*-propargyl-*N*-(3-trimethylsilylpropargyl)amineC₁₈H₃₁NSi₂ MW 317.62¹H NMR

>95%

Order Unit

100 mg: FC-6060-100

1 g: FC-6060-1g

**FC-6066 *N*-[3-(*tert*-Butyldimethylsilyl)propargyl]-*N*-propargyl-*N*-3-amino-propane-1-sulfonamide***N*-[3-(*tert*-Butyldimethylsilyl)propargyl]-*N*-propargyl-*N*-3-amino-propane-1-sulfonamideC₁₅H₂₈N₂O₂SSi MW 328.55¹H NMR

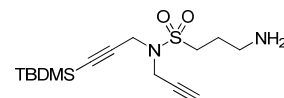
>95%

Order Unit

100 mg: FC-6066-100

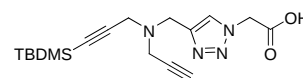
1 g: FC-6066-1g

5 g: FC-6066-5g

**FC-6067 2-[4-[*N*-(3-(*tert*-Butyldimethylsilyl)propargyl)-*N*-propargyl)methyl]-1*H*-1,2,3-triazol-1-yl]acetic acid**2-[4-[*N*-(3-(*tert*-Butyldimethylsilyl)propargyl)-*N*-propargyl)methyl]-1*H*-1,2,3-triazol-1-yl]acetic acidC₁₇H₂₆N₄O₂Si MW 346.50¹H NMR

>95%

Order Unit



FC-6068 *N*-[3-(*tert*-Butyldimethylsilyl)propargyl]-*N*-propargyl-*N*-3-(Boc-amino)propane-1-sulfonamide*N*-[3-(*tert*-Butyldimethylsilyl)propargyl]-*N*-propargyl-*N*-3-(Boc-amino)propane-1-sulfonamide $C_{20}H_{36}N_2O_4SSi$ MW 428.66 1H NMR

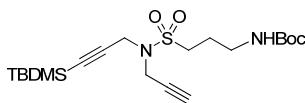
>95%

Order Unit

100 mg: FC-6068-100

1 g: FC-6068-1g

5 g: FC-6068-5g

**FC-6070 Fmoc-L-Asn(*N*-propargyl)-OH**Fmoc-L-Asn(*N*-propargyl)-OH $C_{23}H_{22}N_2O_5$ MW 406.43 1H NMR, purity

>95% (HPLC)

Order Unit

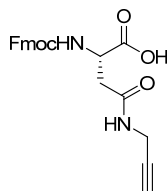
100 mg: FC-6070-100

500 mg: FC-6070-500

1 g: FC-6070-1g

References

- Kaczmarek O. et al. 2'-Linking of Lipids and Other Functions to Uridine through 1,2,3-Triazoles and Membrane Anchoring of the Amphiphilic Products. *Eur. J. Org. Chem.* **2010**, 1579-1586.

**FC-6071 Fmoc-D-Asn(*N*-propargyl)-OH**Fmoc-D-Asn(*N*-propargyl)-OH $C_{23}H_{22}N_2O_5$ MW 406.43 1H NMR, purity

>95% (HPLC)

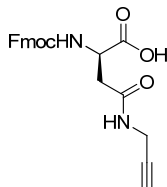
Order Unit

100 mg: FC-6071-100

500 mg: FC-6071-500

References

- Kaczmarek O. et al. 2'-Linking of Lipids and Other Functions to Uridine through 1,2,3-Triazoles and Membrane Anchoring of the Amphiphilic Products. *Eur. J. Org. Chem.* **2010**, 1579-1586.

**FC-6072 Fmoc-L-Asn(*N*-3-azidopropyl)-OH**Fmoc-L-Asn(*N*-3-azidopropyl)-OH $C_{23}H_{25}N_5O_5$ MW 451.48 1H NMR, purity

>95% (HPLC)

Order Unit

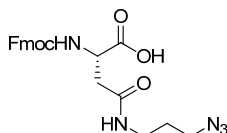
100 mg: FC-6072-100

500 mg: FC-6072-500

1 g: FC-6072-1g

References

- Huang B. et al. Copper-free click conjugation of methotrexate to a PAMAM dendrimer platform. *Tetrahedron Lett.* **2011**, 52, 1411-1414.

**FC-6073 Fmoc-D-Asn(*N*-3-azidopropyl)-OH**Fmoc-D-Asn(*N*-3-azidopropyl)-OH $C_{23}H_{25}N_5O_5$ MW 451.48 1H NMR, purity

>95% (HPLC)

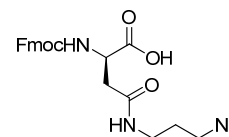
Order Unit

100 mg: FC-6073-100

500 mg: FC-6073-500

References

- Huang B. et al. Copper-free click conjugation of methotrexate to a PAMAM dendrimer platform. *Tetrahedron Lett.* **2011**, 52, 1411-1414.

**FC-6090 *N*-[3-(Triethoxysilyl)propyl]-2-azidoacetamide***N*-[3-(Triethoxysilyl)propyl]-2-azidoacetamide $C_{11}H_{24}N_4O_4Si$ MW 304.42 1H NMR

>95%

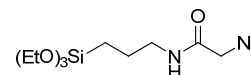
Order Unit

100 mg: FC-6090-100

1 g: FC-6090-1g

References

- Gallant N. D. et al. Universal gradient substrates for "click" biofunctionalization. *Adv. Mater.* **2007**, 19, 965-969.
 - Gonzaga F. et al. Versatile, efficient derivatization of polysiloxanes via click technology. *Chem. Commun.* **2009**, 1730-1732.
 - Rana B. S. et al. Click on silica: systematic immobilization of Co(II) Schiff bases to the mesoporous silica via click reaction and their catalytic activity for aerobic oxidation of alcohols. *Dalton Trans.* **2010**, 39, 7760-7767.

**FC-6091 *N*-[3-(Triethoxysilyl)propyl]-pent-4-ynamide***N*-[3-(Triethoxysilyl)propyl]-pent-4-ynamide $C_{14}H_{27}NO_4Si$ MW 301.45 1H NMR

>95%

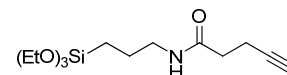
Order Unit

100 mg: FC-6091-100

1 g: FC-6091-1g

References

- Gallant N. D. et al. Universal gradient substrates for "click" biofunctionalization. *Adv. Mater.* **2007**, 19, 965-969.
 - Gonzaga F. et al. Versatile, efficient derivatization of polysiloxanes via click technology. *Chem. Commun.* **2009**, 1730-1732.
 - Rana B. S. et al. Click on silica: systematic immobilization of Co(II) Schiff bases to the mesoporous silica via click reaction and their catalytic activity for aerobic oxidation of alcohols. *Dalton Trans.* **2010**, 39, 7760-7767.

**Contact to FutureChem**

TEL : +82-2-3010-8515, 8517

FAX : +82-2-3010-8516

E-mail : sales@futurechem.co.kr

Website: http://www.futurechem.co.kr

CHEMICALS

- Paclitaxel derivatives
- Chemicals
- Resin
- Intermediates of the Carbapenem

Paclitaxel derivatives

FC-6080 *n*-Bu₃Sn-Paclitaxel

n-Bu₃Sn-Paclitaxel

C₅₉H₇₇NO₁₄Sn MW 1142.95

¹H NMR

>95%

Order Unit

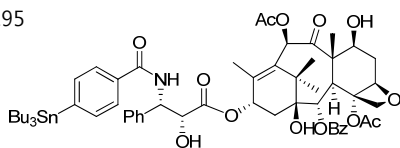
1 mg: FC-6080-1

10 mg: FC-6080-10

References

-Sajjad. M. et al. Investigation of 3'-debenzoyl-3'-([¹²⁴I]-iodobenzoyl)paclitaxel analog as a radio-tracer to study multidrug resistance in vivo *Applied Radiation and Isotopes* **2012**, *70*, 1624-1631.

- Roh E. J. et al. Radiolabeling of paclitaxel with electrophilic ¹²³I. *Bioorg. Med. Chem.* **2000**, *8*, 65-68.



FC-6081 Br-Paclitaxel

Br-Paclitaxel

C₄₇H₅₀BrNO₁₄ MW 932.80

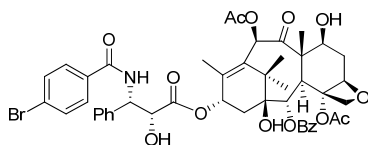
¹H NMR

>95%

Order Unit

1 mg: FC-6081-1

10 mg: FC-6081-10



CHEMISTRY FOR YOUR FUTURE

- FutureChem

Custom Synthesis

Don't worry about custom synthesis.

We provide the highest quality and reasonable price

- Custom designed Peptides
- Carbohydrates
- PET/SPECT standard compounds
- Dye conjugated compounds
- Ionic Liquids
- Etc.

Chemicals

FC-1037 Thymidine

1-(2-Deoxy-β-D-ribofuranosyl)-5-methyluracil, 1-(2-Deoxy-β-D-ribofuranosyl)thymine, 2'-Deoxythymidine, Thymine deoxyriboside, dT

[50-89-5]

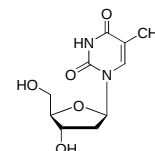
C₁₀H₁₃NO₆ MW 243.21

¹H NMR

>95%

Order Unit

5 g: FC-1037-5g



25 g: FC-1037-25g

FC-3005 1-(2-Hydroxy-2-methylpropyl)imidazole

1-(2-Hydroxy-2-methylpropyl)imidazole

C₇H₁₂N₂O MW 140.18

¹H NMR

>95%

Order Unit

1 g: FC-3005-1g

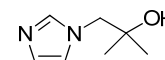
10 g: FC-3005-10g

100 g: FC-3005-100g

References

- Chi, D. Y. et al. SN₂ fluorination reactions in ionic liquids: a mechanistic study toward solvent engineering. *Org. Biomol. Chem.* **2011**, *9*, 418-422.

- Shinde, S. S.; Chi, H. M.; Lee, B. S.; Chi, D. Y. t-Alcohol functionalized imidazolium ionic liquids: Catalysts for mild nucleophilic substitution reactions at room temperature. *Tetrahedron Lett.* **2009**, *50*, 6654-6657.



FC-3100 2-Fluoroethanol

2-Fluoroethanol

[371-62-0]

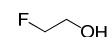
C₂H₅FO MW 64.06

¹H NMR

>95%

Order Unit

5 g: FC-3100-5g



25 g: FC-3100-25g

FC-3101 2-Fluoroethanol tosylate

2-Fluoroethanol tosylate

[383-50-6]

C₉H₁₁FO₃S MW 218.25

¹H NMR

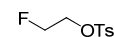
>95%

Order Unit

1 g: FC-3101-1g

5 g: FC-3101-5g

25 g: FC-3101-25g



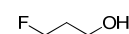
FC-3102 3-Fluoropropan-1-ol

3-Fluoropropan-1-ol

[462-43-1]

C₃H₇FO MW 78.09

¹H NMR



>95%

Order Unit

5 g: FC-3102-5g

25 g: FC-3102-25g

FC-3103 3-Fluoropropanol tosylate

3-Fluoropropanol tosylate

[312-68-5]

 $C_{10}H_{13}FO_3S$ MW 232.27 1H NMR

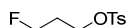
>95%

Order Unit

1 g: FC-3103-1g

5 g: FC-3103-5g

25 g: FC-3103-25g

**FC-3104 2-Fluoroethanol mesylate**

2-Fluoroethanol mesylate

[461-31-4]

 $C_3H_7FO_3S$ MW 142.15 1H NMR

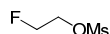
>95%

Order Unit

1 g: FC-3104-1g

5 g: FC-3104-5g

25 g: FC-3104-25g

**FC-3105 3-Fluoropropanol mesylate**

3-Fluoropropanol mesylate

[372-04-3]

 $C_4H_9FO_3S$ MW 156.18 1H NMR

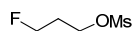
>95%

Order Unit

1 g: FC-3105-1g

5 g: FC-3105-5g

25 g: FC-3105-25g

**FC-5001 Piceatannol**3,4,3',5'-Tetrahydroxy-*trans*-stilbene

[10083-24-6]

 $C_{14}H_{12}O_4$ MW 244.24 1H NMR

>95% (HPLC)

Order Unit

5 mg: FC-5001-5

25 mg: FC-5001-25

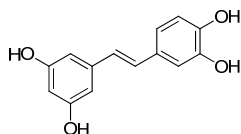
100 mg: FC-5001-100

References

- Oliver et al. Inhibition of mast cell Fc epsilon R1-mediated signaling and effector function by the Syk-selective inhibitor, piceatannol. *J. Biol. Chem.* **1994** 269 29697-29703.

- Ashikawa et al. Piceatannol inhibits TNF-induced NF- κ B activation and NF- κ B-mediated gene expression through suppression of I κ B α kinase and p65 phosphorylation. *J. Immunol.* **2002**, 169 (11) 6490-6497.

- Swanson-Mungerson M, Ikeda M, Lev L, Longnecker R, Portis T. Identification of latent membrane protein 2A (LMP2A) specific targets for treatment and eradication of Epstein-Barr virus (EBV)-associated diseases. *J. Antimicrob. Chemother.* **2003**, 52 (2), 152-154.

**FC-6017 4-Formyl-*N,N,N*-trimethylanilinium triflate**4-Formyl-*N,N,N*-trimethylanilinium triflate(Precursor for 4-[^{18}F]Fluorobenzaldehyde)

[124915-02-2]

 $C_{10}H_{14}NO \cdot CF_3O_3S$ MW 313.29 1H NMR

>95%

Order Unit

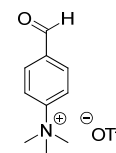
100 mg: FC-6017-100

500 mg: FC-6017-500

References

1. Okarvi S. M. et al. Recent progress in fluorine-18 labelled peptide radiopharmaceuticals. *Eur. J. Nucl. Med.* **2001**, 28, 929-938.

2. Glaser M. et al. Two-step radiosynthesis of [^{18}F]N-succinimidyl-4-fluorobenzoate ([^{18}F]SFB). *J. Label. Compd. Radiopharm.* **2009**, 52, 327-330.

**FC-6019 2-Nitroimidazole**

Azomycin

[527-73-1]

 $C_3H_3N_3O_2$ MW 113.07 1H NMR, MP, purity

>95% (HPLC)

Order Unit

100 mg: FC-6019-100

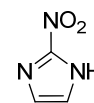
1 g: FC-6019-1g

10 g: FC-6019-10g

References

- Jerabek P. A. et al. Synthesis and biodistribution of fluorine-18-labeled fluoronitroimidazoles: potential in vivo markers of hypoxic tissue. *Appl. Radiat. Isot.* **1986**, 37, 599-605.

- Mees G. et al. Molecular imaging of hypoxia with radiolabelled agents. *Eur. J. Nucl. Med. Mol. Imaging* **2009**, 36, 1674-1686.

**FC-6020 TBAF(*t*-BuOH) $_4$** Tetrabutylammonium tetra-*tert*-butanol coordinated fluoride $C_{32}H_{76}NO_4$ MW 538.94 1H NMRTBAF(*t*-BuOH) $_4$

>95%

Order Unit

500 mg: FC-6020-500

1 g: FC-6020-1g

References

- Kim D. W. et al. Tetrabutylammonium Tetra(*tert*-Butyl Alcohol)-Coordinated Fluoride as a Facile Fluoride Source. *Angew. Chem. Int. Ed.* **2008**, 47, 8404-8406.

FC-6042 2-*O*-Tetrahydropyranyl-1,3-ditosylpropanetriol2-*O*-Tetrahydropyranyl-1,3-ditosylpropanetriol

[150196-32-0]

 $C_{22}H_{28}O_8S_2$ MW 484.58 1H NMR

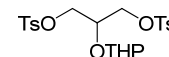
>95%

Order Unit

100 mg: FC-6042-100

1 g: FC-6042-1g

10 g: FC-6042-10g

**FC-6043 [NEt $_4$] $_2$ [ReBr $_3$ (CO) $_3$]**

Bis(tetraethylammonium)tribromotricarbonylirhenate

 $C_{19}H_{40}Br_3N_2O_3Re$ MW 770.45 1H NMR

>95%

Order Unit

FC-6044 TBDMS-Cl*tert*-Butyldimethylsilyl chloride

[18162-48-6]

C₆H₁₅ClSi MW 150.72¹H NMR

>97%

Order Unit (₩)

5 g: FC-6044-5g; 38,000

25 g: FC-6044-25g; 112,000

100 g: FC-6044-100g; 254,000

FC-6050 2-(3-Methanesulfonyloxypropoxy)naphthalene

2-(3-Methanesulfonyloxypropoxy)naphthalene

[463934-08-9]

C₁₄H₁₆O₄S MW 280.34¹H NMR

>95%

Order Unit

100 mg: FC-6050-100

1 g: FC-6050-1g

10 g: FC-6050-10g

References

- Kim D. W. et al. A New Class of S_N2 Reactions Catalyzed by Protic Solvents: Facile Fluorination for Isotopic Labeling of Diagnostic Molecules. *J. Am. Chem. Soc.* **2006**, *128*, 16394-16397.

FC-6051 2-(2-Methanesulfonyloxypropoxy)naphthalene

2-(2-Methanesulfonyloxypropoxy)naphthalene

[601470-34-2]

C₁₄H₁₆O₄S MW 280.34¹H NMR

>95%

Order Unit

100 mg: FC-6051-100

1 g: FC-6051-1g

10 g: FC-6051-10g

References

- Kim D. W. et al. A New Class of S_N2 Reactions Catalyzed by Protic Solvents: Facile Fluorination for Isotopic Labeling of Diagnostic Molecules. *J. Am. Chem. Soc.* **2006**, *128*, 16394-16397.

FC-6052 2-[2-(*p*-Toluene)sulfonyloxypropoxy]naphthalene2-[2-(*p*-Toluene)sulfonyloxypropoxy]naphthaleneC₂₀H₂₀O₄S MW 356.44¹H NMR

>95%

Order Unit

100 mg: FC-6052-100

1 g: FC-6052-1g

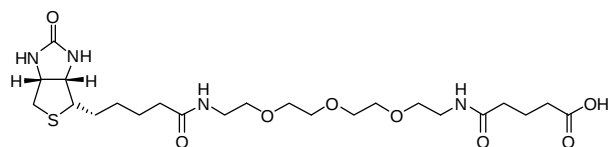
10 g: FC-6052-10g

References

- Kim D. W. et al. A New Class of S_N2 Reactions Catalyzed by Protic Solvents: Facile Fluorination for Isotopic Labeling of Diagnostic Molecules. *J. Am. Chem. Soc.* **2006**, *128*, 16394-16397.

FC-6063 (+)-Biotin-EG₄-NH-glutaric acid(+) -Biotin-EG₄-NH-glutaric acidC₂₃H₄₀N₄O₈S MW 532.65¹H NMR

>95%



Order Unit

10 mg: FC-6063-10

100 mg: FC-6063-100

1 g: FC-6063-1g

FC-6201 Triethylene glycol-1-mesylate

Triethylene glycol-1-mesylate

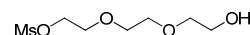
C₇H₁₆O₆S MW 228.26¹H NMR

>95%

Order Unit

1 g: FC-6201-1g

5 g: FC-6201-5g

**FC-6202 Triethylene glycol-1-methanesulfonate-8-OTBDMS**

Triethylene glycol-1-methanesulfonate-8-OTBDMS

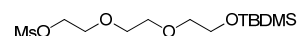
C₁₃H₃₀O₆SSi MW 342.52¹H NMR

>95%

Order Unit

250 mg: FC-6202-250

1 g: FC-6202-1g

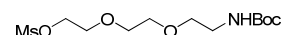
**FC-6203 1-*N*-Boc-amino-3,6-dioxo-8-octanol mesylate**1-*N*-Boc-amino-3,6-dioxo-8-octanol mesylateC₁₂H₂₅NO₇S MW 327.39¹H NMR

>95%

Order Unit

100 mg: FC-6203-100

1 g: FC-6203-1g

**FC-7010 3-Fluoro-2-OTHP-propyl tosylate**

3-Fluoro-2-OTHP-propyl tosylate

C₁₅H₂₁FO₅S MW 332.39¹H NMR

>95%

Order Unit

FC-8101 Anap sodium salt

3-(6-Acetylnaphthalen-2-ylamino)-2-aminopropanoic acid sodium salt

C₁₅H₁₅N₂NaO₃ MW 294.28¹H NMR, ESI-MS, purity

>95% (HPLC)

Order Unit

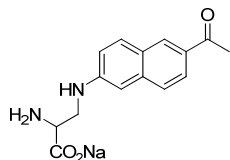
100 mg: FC-8101-100

500 mg: FC-8101-500

1 g: FC-8101-1g

References

- Hyun Soo Lee, Peter G. Schultz et al. Genetic Incorporation of a Small, Environmentally Sensitive, Fluorescent Probe into Proteins in *Saccharomyces cerevisiae*. *J. Am. Chem. Soc.* **2009**, *131*, 12921-12923.

**FC-8102 Bpy-Ala trihydrochloride**

3-(2,2'-Bipyridin-5-yl)-2-aminopropanoic acid trihydrochloride

 $C_{13}H_{13}N_3O_2 \cdot 3 HCl$ MW 352.64 1H NMR, ESI-MS, purity

>98% (HPLC)

Order Unit

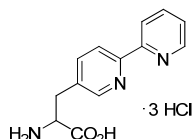
100 mg: FC-8102-100

500 mg: FC-8102-500

1 g: FC-8102-1g

References

- Hyun Soo Lee and Peter G. Schultz et al. Biosynthesis of a Site-Specific DNA Cleaving Protein. *J. Am. Chem. Soc.* **2008**, *130*, 13194-13195.

**FC-8103 HQ-Ala dihydrochloride**

2-Amino-3-(8-hydroquinolin-3-yl)propanoic acid dihydrochloride(+)-[1123191-88-7]

 $C_{12}H_{12}N_2O_3 \cdot 2 HCl$ MW 305.16 1H NMR, ESI-MS, purity

>98% (HPLC)

Order Unit

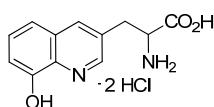
100 mg: FC-8103-100

500 mg: FC-8103-500

1 g: FC-8103-1g

References

- Hyun Soo Lee, Peter G. Schultz et al. Genetic Incorporation of a Metal-Ion Chelating Amino acid into Proteins as a Biophysical Probe. *J. Am. Chem. Soc.* **2009**, *131*, 2481-2483.

**FC-8111 Hydrazinium Carboxylate (anhydrous)**

Hydrazinecarboxylic acid zwitterion, carbazic acid zwitterion, carbazic acid, alpha-azaglycine, aza-Gly, carbazate [471-31-8]

 $CH_4N_2O_2$ MW 76.05

EA, Solid state NMR

>99.9 %

Order Unit

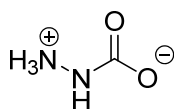
1 g : FC-8111-1g

10 g : FC-8111-10g

100 g: FC-8111-100g

References

- Lee, B., Kang, S. H., Kang, D., Lee, K. H., Cho, J., Nam, W., Han, O. H., Hur, N. H. Isolation and structural characterization of the elusive 1:1 adduct of hydrazine and carbon dioxide. *Chem. Commun.* **2011**, *47*, 11219-11221.

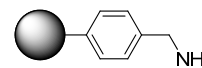


Resins

PRSA5002 Aminomethyl resin

Aminomethyl resin

Off-white to yellow beads



Mesh: 100 ~ 200 mesh (75 ~ 150 um)

Sub Level: 0.6 ~ 2.5 mmol/g

Core polymer: PS crosslinked with 1% DVB

Swelling: 4.0 ~ 7.0 mL/g in DMF

CoA: Sub. Level (mmol/g), Swelling (mL/g), LOD (%)

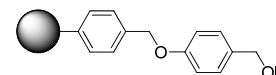
Order Unit

Up to ~ 100 kg scale (Metric ton scale available on special order)

PRSA5009 Wang resin

Wang resin

Off-white to yellow beads



Mesh: 100 ~ 200 mesh (75 ~ 150 um)

Sub Level: 0.6 ~ 2.2 mmol/g

Core polymer: PS crosslinked with 1% DVB

Swelling: 5.0 ~ 7.0 mL/g in DMF

CoA: Sub. Level (mmol/g), Swelling (mL/g), LOD (%)

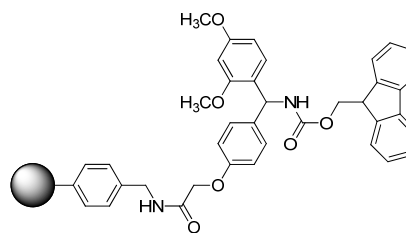
Order Unit

Up to ~ 100 kg scale (Metric ton scale available on special order)

PRSA5066 Rink amide AM resin

Rink amide AM resin

Off-white to yellow beads



Mesh: 100 ~ 200 mesh (75 ~ 150 um)

Sub Level: 0.3 ~ 1.0 mmol/g

Core polymer: PS crosslinked with 1% DVB

Swelling: 4.0 ~ 7.0 mL/g in DMF

CoA: Sub. Level (mmol/g), Swelling (mL/g), LOD (%)

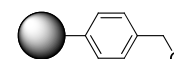
Order Unit

Up to ~ 100 kg scale (Metric ton scale available on special order)

PRSC5004 Merrifield resin

Merrifield resin

Off-white to yellow beads

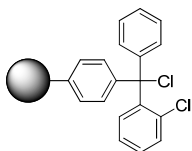


Mesh: 100 ~ 200 mesh
 Sub Level: 0.6 ~ 2.2 mmol/g
 Core polymer: PS crosslinked with 1% DVB
 Swelling: 4.5 ~ 7.0 mL/g in DMF
 CoA: Sub. Level (mmol/g), Swelling (mL/g), LOD (%)
 Order Unit
 Up to ~ 100 kg scale (Metric ton scale available on special order)

PRSC5055 2-Chlorotrityl chloride resin

2-Chlorotrityl chloride resin
 Pale yellow to brown beads

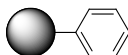
Mesh: 100 ~ 200 mesh
 Sub Level: 0.4 ~ 1.5 mmol/g
 Core polymer: PS crosslinked with 1% DVB
 Swelling: 3.0 ~ 5.0 mL/g in DMF
 CoA: Sub. Level (mmol/g), Swelling (mL/g), LOD (%)
 Order Unit
 Up to ~ 100 kg scale (Metric ton scale available on special order)



PRSP5011 Polystyrene

Polystyrene
 White beads

Mesh: 100 ~ 200 mesh
 Core Crosslinking: DVB 1.0 wt%
 Swelling: 7.0 ~ 9.0 mL/g in DMF
 CoA: Sub. Swelling (mL/g), LOD (%)
 Order Unit
 Up to ~ 100 kg scale (Metric ton scale available on special order)



CHEMISTRY FOR YOUR FUTURE - FutureChem

Custom Synthesis

Don't worry about custom synthesis.
 We provide the highest quality and reasonable price

- Peptides
- Carbohydrates
- PET/SPECT standard compounds
- Dye conjugated compounds
- Ionic Liquids
- Etc.

Intermediates of the Carbapenem

CyC-1001 4-AA, AOSA

(3R, 4R)-4-Acetoxy-3-[(R)-(tert-butyl-dimethylsilyloxy-ethyl]-2-azetidinone

[76855-69-1]

C₁₃H₂₅NO₄Si MW 287.43

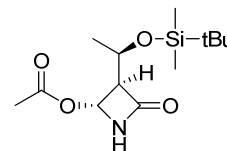
¹H NMR, IR, MP, purity

>98% (HPLC)

Order Unit

1 g: CyC-1001-1g

10 g: CyC-1001-10 g



CyC-1002 4-BMA

[3S(1R,1R)4S]-[3-(tert-Butyldimethylsilyloxy)-ethyl]-4-carboxyethyl-2-azetidinone

[90776-58-2]

C₁₄H₂₇NO₄Si MW 301.45

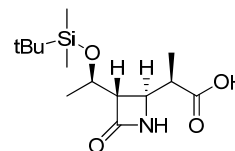
¹H NMR, MP

>98% (Optical)

Order Unit

1 g: CyC-1002-1g

10 g: CyC-1002-10 g



CyC-1003 MAP(P-2)

(1R,5R,6S)-6-[(1R)-1-Hydroxyethyl]-2-[(diphenylphosphono)-oxy]-1-methylcarbapen-2-ene-3-carboxylic acid 4-nitrobenzyl ester

[90776-59-3]

C₂₉H₂₇N₂O₁₀P MW 594.51

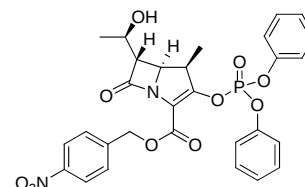
¹H NMR, purity

>98% (HPLC)

Order Unit

1 g: CyC-1003-1g

10 g: CyC-1003-10 g



CyC-1004 Protected Meropenem(P-1)

(4R,5S,6S)-3-[[[(3S,5S)-5-[(Dimethylamino)-carbonyl]-1-[(4-nitrophenyl)-methoxy]-carbonyl]-3-pyrrolidinyl]-thio]-6-[(1R)-1-hydroxyethyl]-4-methyl-7-oxo-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid

[96036-02-1]

C₃₂H₃₅N₅O₁₁S MW 697.71

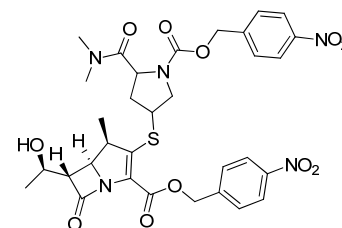
¹H NMR, purity

>98% (HPLC)

Order Unit

1 g: CyC-1004-1g

10 g: CyC-1004-10 g



CyC-1005 Side chain for Meropenem

(2S,4S)-2-[(Dimethylamino)-carbonyl]-4-mercapto-1-

pyrrolidinecarboxylic acid (4-nitrophenyl)-methyl ester

[96034-64-9]

C₁₅H₁₉N₃O₅S MW 353.39

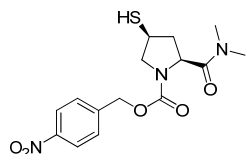
¹H NMR, Optical rotation

>98% (Optical)

Order Unit

1 g: CyC-1005-1g

10 g: CyC-1005-10 g



CyC-1006 Meropenem, crude

(4R,5S,6S)-3-[[[(3S,5S)-5-[(D-imethylamino)carbonyl]-3-pyrrolidinyl]thio]-6-[(1R)-1-hydroxyethyl]-4-methyl-7-oxo-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid

[119478-56-7]

C₁₇H₂₅N₃O₅S MW 383.46

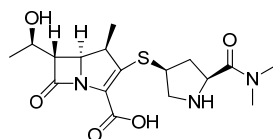
¹H NMR, Optical rotation

>95% (Optical)

Order Unit

1 g: CyC-1006-1g

10 g: CyC-1006-10 g



CyC-1007 Me-7(p-3)

(3S,4R)-3-[(1R)-1-Hydroxyethyl]-4-[(1R)-1-methyl-3-diazo-3-p-nitrobenzyloxycarbonyl-2-oxopropyl]-azetidin-2-one

[83973-54-0]

C₁₇H₁₈N₄O₇ MW 390.35

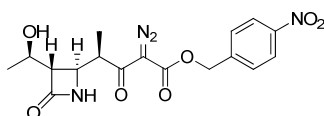
¹H NMR

>98%

Order Unit

1 g: CyC-1007-1g

10 g: CyC-1006-7 g



You can download New FutureChem Catalog

at FutureChem website.

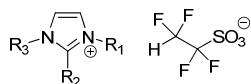
Visit www.futurechem.co.kr

IONIC LIQUIDS

- Imidazolium- based Ionic liquids
- Ammonium-based Ionic liquids
- Piperidinium-based Ionic liquids
- Pyridinium-based Ionic liquids
- Sulfonium-based Ionic liquids
- Pyrrolidinium-based Ionic liquids
- Phosphonium-based Ionic liquids
- Speciality for Ionic liquids

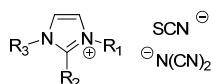
Imidazolium-based Ionic liquids

1,1,2,2-Tetrafluoroethanesulfonates



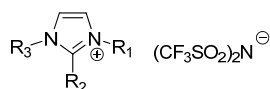
Catalog No.	CAS No.	Name
FCIL-0232	[880084-63-9]	1-Ethyl-3-methylimidazolium 1,1,2,2-tetrafluoroethanesulfonate, 99%
FCIL-0233	[-]	1-Methyl-3-propylimidazolium 1,1,2,2-tetrafluoroethanesulfonate, 99%
FCIL-0234	[880084-62-8]	1-Butyl-3-methylimidazolium 1,1,2,2-tetrafluoroethanesulfonate, 99%
FCIL-0254	[-]	1-Benzyl-3-methylimidazolium 1,1,2,2-tetrafluoroethanesulfonate, >98%
FCIL-0255	[-]	1-Butyl-3-ethylimidazolium 1,1,2,2-tetrafluoroethanesulfonate, >98%
FCIL-0262	[-]	1-Methylimidazolium 1,1,2,2-tetrafluoroethanesulfonate, 98%
FCIL-0270	[-]	1-Ethylimidazolium 1,1,2,2-tetrafluoroethanesulfonate, 98%

Thiocyanates, Dicyanamides



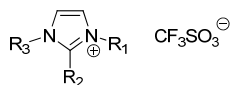
Catalog No.	CAS No.	Name
FCIL-0007	[331717-63-6]	1-Ethyl-3-methylimidazolium thiocyanate, >98%
FCIL-0063	[344790-87-0]	1-Butyl-3-methylimidazolium thiocyanate, >98%
FCIL-0003	[370865-89-7]	1-Ethyl-3-methylimidazolium dicyanamide, >98%
FCIL-0010	[448245-52-1]	1-Butyl-3-methylimidazolium dicyanamide, >98%
FCIL-0240	[917956-73-1]	1-Allyl-3-methylimidazolium dicyanamide, >98%
FCIL-0242	[958445-60-8]	1-Benzyl-3-methylimidazolium dicyanamide, >98%

Bis(trifluoromethylsulfonyl)imides



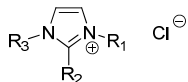
Catalog No.	CAS No.	Name
FCIL-0023	[174899-82-2]	1-Ethyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide, 99%
FCIL-0024	[216299-72-8]	1-Methyl-3-propylimidazolium bis(trifluoromethylsulfonyl)imide, 99%
FCIL-0029	[174899-83-3]	1-Butyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide, 99%
FCIL-0098	[382150-50-7]	1-Hexyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide, 99%
FCIL-0099	[178631-04-4]	1-Methyl-3-octylimidazolium bis(trifluoromethylsulfonyl)imide, 99%
FCIL-0100	[433337-23-6]	1-Decyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide, >98%
FCIL-0101	[404001-48-5]	1-Dodecyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide, >98%
FCIL-0102	[404001-49-6]	1-Methyl-3-tetradecylimidazolium bis(trifluoromethylsulfonyl)imide, >98%
FCIL-0103	[404001-50-9]	1-Hexadecyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide, >98%
FCIL-0104	[350493-08-2]	1-Butyl-2,3-dimethylimidazolium bis(trifluoromethylsulfonyl)imide, 99%
FCIL-0106	[174899-90-2]	1-Ethyl-2,3-dimethylimidazolium bis(trifluoromethylsulfonyl)imide, 99%
FCIL-0134	[169051-76-7]	1,2-Dimethyl-3-propylimidazolium bis(trifluoromethylsulfonyl)imide, 99%
FCIL-0188	[174899-88-8]	1,3-Diethylimidazolium bis(trifluoromethylsulfonyl)imide, 98%
FCIL-0198	[174899-81-1]	1,3-Dimethylimidazolium bis(trifluoromethylsulfonyl)imide, 99%
FCIL-0200	[404001-51-0]	1-Methyl-3-octadecylimidazolium bis(trifluoromethylsulfonyl)imide, >98%
FCIL-0239	[655249-87-9]	1-Allyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide, 99%
FCIL-0241	[433337-24-7]	1-Benzyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide, 99%
FCIL-0261	[353239-08-4]	1-Methylimidazolium bis(trifluoromethylsulfonyl)imide, 98%
FCIL-0269	[353239-10-8]	1-Ethylimidazolium bis(trifluoromethylsulfonyl)imide, 98%
FCIL-0278	[353239-12-0]	1,2-Dimethylimidazolium bis(trifluoromethylsulfonyl)imide, 98%
FCIL-0285	[347882-21-7]	1-Ethyl-3-propylimidazolium bis(trifluoromethylsulfonyl)imide, 98%
FCIL-0289	[174899-89-9]	1-Butyl-3-ethylimidazolium bis(trifluoromethylsulfonyl)imide, 98%
FCIL-0291	[204854-22-8]	1-Ethyl-3-vinylimidazolium bis(trifluoromethylsulfonyl)imide, 98%
FCIL-0293	[758716-72-2]	1-Butyl-3-vinylimidazolium bis(trifluoromethylsulfonyl)imide, 98%
FCIL-0300	[280779-53-5]	1-Methyl-3-pentylimidazolium bis(trifluoromethylsulfonyl)imide, >99%
FCIL-0301	[425382-14-5]	1-Heptyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide, >99%
FCIL-0302	[433337-21-4]	1-Methyl-3-nonylimidazolium bis(trifluoromethylsulfonyl)imide, >99%

Triflates



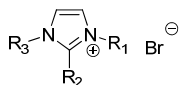
Catalog No.	CAS No.	Name
FCIL-0002	[174899-72-0]	1-Ethyl-2,3-dimethylimidazolium trifluoromethanesulfonate, 99%
FCIL-0009	[145022-44-2]	1-Ethyl-3-methylimidazolium trifluoromethanesulfonate, 99%
FCIL-0013	[174899-66-2]	1-Butyl-3-methylimidazolium trifluoromethanesulfonate, 99%
FCIL-0059	[765910-73-4]	1-Butyl-2,3-dimethylimidazolium trifluoromethanesulfonate, 99%
FCIL-0068	[412009-62-2]	1-Decyl-3-methylimidazolium trifluoromethanesulfonate, 99%
FCIL-0070	[460345-16-8]	1-Hexyl-3-methylimidazolium trifluoromethanesulfonate, 99%
FCIL-0073	[403842-84-2]	1-Methyl-3-octylimidazolium trifluoromethanesulfonate, 99%
FCIL-0133	[404001-52-1]	1-Dodecyl-3-methylimidazolium trifluoromethanesulfonate, 99%
FCIL-0263	[99257-94-0]	1-Methylimidazolium trifluoromethanesulfonate, 98%
FCIL-0271	[501693-46-5]	1-Ethylimidazolium trifluoromethanesulfonate, 98%
FCIL-0296	[-]	1-Methyl-3-propylimidazolium trifluoromethanesulfonate, 99%

Chlorides



Catalog No.	CAS No.	Name
FCIL-0014	[79917-90-1]	1-Butyl-3-methylimidazolium chloride, 99%
FCIL-0022	[65039-10-3]	1-Allyl-3-methylimidazolium chloride, >98%
FCIL-0039	[61755-34-8]	1-(2-Hydroxyethyl)-3-methylimidazolium chloride, 99%
FCIL-0046	[70862-65-6]	1,3-Didecyl-2-methylimidazolium chloride, >98%
FCIL-0054	[171058-17-6]	1-Hexyl-3-methylimidazolium chloride, >98%
FCIL-0056	[98892-75-2]	1-Butyl-2,3-dimethylimidazolium chloride, 99%
FCIL-0065	[171058-18-7]	1-Decyl-3-methylimidazolium chloride, >98%
FCIL-0072	[64697-40-1]	1-Methyl-3-octylimidazolium chloride, >98%
FCIL-0093	[65039-09-0]	1-Ethyl-3-methylimidazolium chloride, >98%
FCIL-0094	[35487-17-3]	1-Methylimidazolium chloride, 98%
FCIL-0115	[61546-01-8]	1-Hexadecyl-3-methylimidazolium chloride, >98%
FCIL-0120	[114569-84-5]	1-Dodecyl-3-methylimidazolium chloride, >98%
FCIL-0140	[36443-80-8]	1-Benzyl-3-methylimidazolium chloride, 99%
FCIL-0141	[171058-21-2]	1-Methyl-3-tetradecylimidazolium chloride, >98%
FCIL-0144	[79917-89-8]	1-Methyl-3-propylimidazolium chloride, >98%
FCIL-0160	[171058-19-8]	1-Methyl-3-octadecylimidazolium chloride, >98%
FCIL-0275	[81505-35-3]	1-Ethylimidazolium chloride, 98%
FCIL-0277	[34531-53-8]	1,2-Dimethylimidazolium chloride, 98%

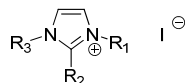
Bromides



Catalog No.	CAS No.	Name
FCIL-0015	[65039-08-9]	1-Ethyl-3-methylimidazolium bromide, 99%
FCIL-0037	[85100-77-2]	1-Butyl-3-methylimidazolium bromide, 99%
FCIL-0055	[475575-45-2]	1-Butyl-2,3-dimethylimidazolium bromide, 99%
FCIL-0064	[188589-32-4]	1-Decyl-3-methylimidazolium bromide, >98%
FCIL-0069	[85100-78-3]	1-Hexyl-3-methylimidazolium bromide, 99%
FCIL-0071	[61545-99-1]	1-Methyl-3-octylimidazolium bromide, 99%
FCIL-0096	[85100-76-1]	1-Methyl-3-propylimidazolium bromide, 99%
FCIL-0119	[61546-00-7]	1-Dodecyl-3-methylimidazolium bromide, >98%
FCIL-0135	[98892-76-3]	1-Ethyl-2,3-dimethylimidazolium bromide, 99%
FCIL-0229	[107937-17-7]	1,2-Dimethyl-3-propylimidazolium bromide, 99%
FCIL-0267	[101023-58-9]	1-Methylimidazolium bromide, 98%
FCIL-0276	[501693-36-3]	1-Ethylimidazolium bromide, 98%
FCIL-0279	[54304-66-4]	1,3-Diethylimidazolium bromide, 98%

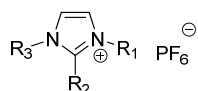
FCIL-0282	[637348-59-5]	1-Ethyl-3-propylimidazolium bromide, 98%
FCIL-0286	[174899-64-0]	1-Butyl-3-ethylimidazolium bromide, 98%
FCIL-0290	[34311-88-1]	1-Ethyl-3-vinylimidazolium bromide, 98%
FCIL-0292	[34311-90-5]	1-Butyl-3-vinylimidazolium bromide, 98%
FCIL-0298	[343851-32-1]	1-Heptyl-3-methylimidazolium bromide, >99%
FCIL-0299	[343851-34-3]	1-Methyl-3-nonylimidazolium bromide, >99%

Iodides



Catalog No.	CAS No.	Name
FCIL-0025	[119171-18-5]	1-Methyl-3-propylimidazolium iodide, >98%
FCIL-0026	[178631-05-5]	1-Hexyl-3-methylimidazolium iodide, >98%
FCIL-0048	[35935-34-3]	1-Ethyl-3-methylimidazolium iodide, >98%
FCIL-0049	[218151-78-1]	1,2-Dimethyl-3-propylimidazolium iodide, >98%
FCIL-0051	[65039-05-6]	1-Butyl-3-methylimidazolium iodide, >98%
FCIL-0136	[81995-09-7]	1-Dodecyl-3-methylimidazolium iodide, >98%
FCIL-0137	[108203-70-9]	1-Butyl-2,3-dimethylimidazolium iodide, >98%
FCIL-0138	[288627-94-1]	1-Hexyl-2,3-dimethylimidazolium iodide, >98%
FCIL-0199	[4333-62-4]	1,3-Dimethylimidazolium iodide, >98%
FCIL-0231	[65039-07-8]	1-Allyl-3-methylimidazolium iodide, >98%

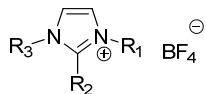
Hexafluorophosphates



Catalog No.	CAS No.	Name
FCIL-0011	[174501-64-5]	1-Butyl-3-methylimidazolium hexafluorophosphate, 99%
FCIL-0018	[304680-35-1]	1-Hexyl-3-methylimidazolium hexafluorophosphate, 99%
FCIL-0020	[304680-36-2]	1-Methyl-3-octylimidazolium hexafluorophosphate, 99%
FCIL-0057	[227617-70-1]	1-Butyl-2,3-dimethylimidazolium hexafluorophosphate, 99%
FCIL-0066	[362043-46-7]	1-Decyl-3-methylimidazolium hexafluorophosphate, >98%
FCIL-0095	[219947-93-0]	1-Dodecyl-3-methylimidazolium hexafluorophosphate, >98%
FCIL-0122	[155371-19-0]	1-Ethyl-3-methylimidazolium hexafluorophosphate, 99%
FCIL-0139	[292140-86-4]	1-Ethyl-2,3-dimethylimidazolium hexafluorophosphate, 99%
FCIL-0142	[216300-12-8]	1-Methyl-3-propylimidazolium hexafluorophosphate, 99%
FCIL-0157	[219947-94-1]	1-Methyl-3-tetradecylimidazolium hexafluorophosphate, >98%
FCIL-0158	[219947-95-2]	1-Hexadecyl-3-methylimidazolium hexafluorophosphate, >98%
FCIL-0159	[219947-96-3]	1-Methyl-3-octadecylimidazolium hexafluorophosphate, >98%
FCIL-0187	[433337-11-2]	1-Benzyl-3-methylimidazolium hexafluorophosphate, 99%
FCIL-0281	[370085-15-7]	1,3-Diethylimidazolium hexafluorophosphate, 98%
FCIL-0284	[-]	1-Ethyl-3-propylimidazolium hexafluorophosphate, 98%
FCIL-0288	[256647-89-9]	1-Butyl-3-ethylimidazolium hexafluorophosphate, 98%
FCIL-0306	[280779-52-4]	1-Methyl-3-pentylimidazolium hexafluorophosphate, >99%
FCIL-0307	[357915-04-9]	1-Heptyl-3-methylimidazolium hexafluorophosphate, >99%
FCIL-0308	[344952-29-4]	1-Methyl-3-nonylimidazolium hexafluorophosphate, >99%

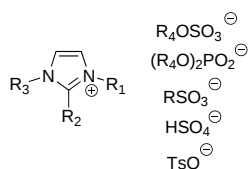
Tetrafluoroborates

Catalog No.	CAS No.	Name
FCIL-0001	[307492-75-7]	1-Ethyl-2,3-dimethylimidazolium tetrafluoroborate, >98%
FCIL-0006	[143314-16-3]	1-Ethyl-3-methylimidazolium tetrafluoroborate, >98%
FCIL-0012	[174501-65-6]	1-Butyl-3-methylimidazolium tetrafluoroborate, 99.5%
FCIL-0019	[244193-50-8]	1-Hexyl-3-methylimidazolium tetrafluoroborate, 99%
FCIL-0021	[244193-52-0]	1-Methyl-3-octylimidazolium tetrafluoroborate, 99%
FCIL-0038	[374564-83-7]	1-(2-Hydroxyethyl)-3-methylimidazolium tetrafluoroborate, >98%



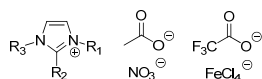
FCIL-0058	[402846-78-0]	1-Butyl-2,3-dimethylimidazolium tetrafluoroborate, 99%
FCIL-0067	[244193-56-4]	1-Decyl-3-methylimidazolium tetrafluoroborate, >98%
FCIL-0097	[244193-64-4]	1-Hexadecyl-3-methylimidazolium tetrafluoroborate, >98%
FCIL-0132	[244193-59-7]	1-Dodecyl-3-methylimidazolium tetrafluoroborate, >98%
FCIL-0143	[244193-48-4]	1-Methyl-3-propylimidazolium tetrafluoroborate, >98%
FCIL-0193	[500996-04-3]	1-Benzyl-3-methylimidazolium tetrafluoroborate, 99%
FCIL-0210	[244193-65-5]	1-Methyl-3-octadecylimidazolium tetrafluoroborate, >98%
FCIL-0256	[244193-61-1]	1-Methyl-3-tetradecylimidazolium tetrafluoroborate, >98%
FCIL-0280	[847335-65-3]	1,3-Diethylimidazolium tetrafluoroborate, 98%
FCIL-0283	[-]	1-Ethyl-3-propylimidazolium tetrafluoroborate, 98%
FCIL-0287	[581101-91-9]	1-Butyl-3-ethylimidazolium tetrafluoroborate, 98%
FCIL-0303	[244193-49-5]	1-Methyl-3-pentylimidazolium tetrafluoroborate, >99%
FCIL-0304	[244193-51-9]	1-Heptyl-3-methylimidazolium tetrafluoroborate, >99%
FCIL-0305	[244193-55-3]	1-Methyl-3-nonylimidazolium tetrafluoroborate, >99%

Sulphates, Sulfonates, Phosphates, Tosylate



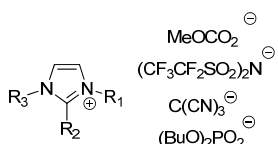
Catalog No.	CAS No.	Name
FCIL-0112	[516474-01-4]	1-Ethyl-3-methylimidazolium methyl sulfate, 99%
FCIL-0243	[97345-90-9]	1,3-Dimethylimidazolium methyl sulfate, 99%%
FCIL-0033	[342573-75-5]	1-Ethyl-3-methylimidazolium ethyl sulfate, 99%
FCIL-0244	[516474-04-7]	1,3-Diethylimidazolium ethyl sulfate, 99%
FCIL-0053	[654058-04-5]	1,3-Dimethylimidazolium dimethyl phosphate, >98%
FCIL-0220	[945611-27-8]	1-Ethyl-3-methylimidazolium dimethyl phosphate, >98%
FCIL-0257	[891772-94-4]	1-Butyl-3-methylimidazolium dimethyl phosphate, >98%
FCIL-0052	[663199-29-9]	1-Ethyl-3-methylimidazolium diethyl phosphate, >98%
FCIL-0245	[945406-32-6]	1,3-Diethylimidazolium diethyl phosphate, >98%
FCIL-0060	[262297-13-2]	1-Butyl-3-methylimidazolium hydrogen sulfate, 99%
FCIL-0091	[412009-61-1]	1-Ethyl-3-methylimidazolium hydrogen sulfate, 99%
FCIL-0061	[342789-81-5]	1-Butyl-3-methylimidazolium methanesulfonate, 99%
FCIL-0004	[145022-45-3]	1-Ethyl-3-methylimidazolium methanesulfonate, 99%
FCIL-0008	[328090-25-1]	1-Ethyl-3-methylimidazolium tosylate, 99%

Acetates, Trifluoroacetates, Nitrates, Tetrachloroferrates



Catalog No.	CAS No.	Name
FCIL-0189	[143314-17-4]	1-Ethyl-3-methylimidazolium acetate, >95%
FCIL-0315	[284049-75-8]	1-Butyl-3-methylimidazolium acetate, >98%
FCIL-0027	[174899-65-1]	1-Ethyl-3-methylimidazolium trifluoroacetate, >97%
FCIL-0260	[174899-94-6]	1-Butyl-3-methylimidazolium trifluoroacetate, >97%
FCIL-0005	[143314-14-1]	1-Ethyl-3-methylimidazolium nitrate, >98%
FCIL-0264	[-]	1-Methylimidazolium nitrate, 98%
FCIL-0272	[501693-38-5]	1-Ethylimidazolium nitrate, 98%
FCIL-0047	[359845-21-9]	1-Butyl-3-methylimidazolium tetrachloroferrate(III), >97%

Methylcarbonates, Bis(perfluoroethylsulfonyl)imides, Tricyanomethanide, Dibutylphosphates

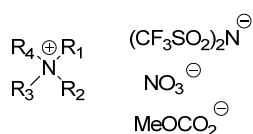


Catalog No.	CAS No.	Name
FCIL-0027	[251102-26-7]	1-Ethyl-3-methylimidazolium methylcarbonate, >97%, ~30% in MeOH
FCIL-0028	[916850-37-8]	1-Butyl-3-methylimidazolium methylcarbonate, >97%, ~30% in MeOH
FCIL-0316	[-]	1-Ethyl-3-methylimidazolium tricyanomethanide, 98%
FCIL-0317	[-]	1-Butyl-3-methylimidazolium tricyanomethanide, 98%
FCIL-0320	[216299-76-2]	1-Ethyl-3-methylimidazolium bis(perfluoroethylsulfonyl)imide, 99%

FCIL-0321	[-]	1-Butyl-3-methylimidazolium bis(perfluoroethylsulfonyl)imide, 99%
FCIL-0323	[869858-84-4]	1-Ethyl-3-methylimidazolium dibutylphosphate, 97%
FCIL-0324	[663199-28-8]	1-Butyl-3-methylimidazolium dibutylphosphate, 97%

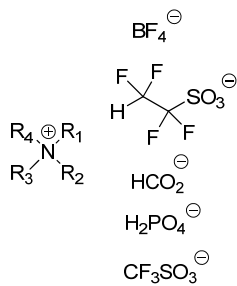
Ammonium-based Ionic liquids

Bis(trifluoromethylsulfonyl)imide. Nitrate. Methylcarbonates



Catalog No.	CAS No.	Name
FCIL-0017	[375395-33-8]	Methyltrioctylammonium bis(trifluoromethylsulfonyl)imide, 99%
FCIL-0032	[258273-75-5]	Butyltrimethylammonium bis(trifluoromethylsulfonyl)imide, 99%
FCIL-0110	[827027-25-8]	Choline bis(trifluoromethylsulfonyl)imide, 99%
FCIL-0117	[405514-94-5]	Tributylmethylammonium bis(trifluoromethylsulfonyl)imide, 99%
FCIL-0116	[464927-84-2]	<i>N,N</i> -Diethyl- <i>N</i> -methyl- <i>N</i> -(2-methoxyethyl)ammonium bis(trifluoromethylsulfonyl)imide, 99%
FCIL-0043	[22113-86-6]	Ethylammonium nitrate, >97%
FCIL-0124	[22113-87-7]	Methylammonium nitrate, >97%
FCIL-0125	[22113-88-8]	Propylammonium nitrate, >97%
FCIL-0126	[30781-73-8]	Dimethylammonium nitrate, >97%
FCIL-S032	[-]	Butyltrimethylammonium methylcarbonate, >97%, ~50% in MeOH
FCIL-S033	[488711-07-5]	Methyltrioctylammonium methylcarbonate, >97%, ~50% in MeOH
FCIL-S034	[-]	<i>N</i> -Ethyl- <i>N</i> -methylmorpholinium methylcarbonate, >97%, ~50% in MeOH

Tetrafluoroborate, Tetrafluoroethanesulfonate, Formate, Phosphate, Trifluoromethanesulfonate

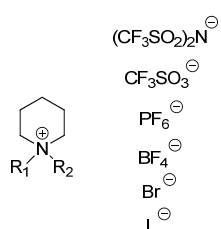


Catalog No.	CAS No.	Name
FCIL-0123	[464927-72-8]	<i>N,N</i> -Diethyl- <i>N</i> -methyl- <i>N</i> -(2-methoxyethyl)ammonium tetrafluoroborate, 99%
FCIL-0237	[-]	Butyltrimethylammonium 1,1,2,2-tetrafluoroethanesulfonate, 99%
FCIL-0238	[-]	Tetraethylammonium 1,1,2,2-tetrafluoroethanesulfonate, >98%
FCIL-0034	[53226-35-0]	2-Hydroxyethylammonium formate, >97%
FCIL-0042	[83846-92-8]	Choline dihydrogen phosphate, >98%
FCIL-0118	[121107-18-4]	Methyltrioctylammonium trifluoromethanesulfonate, 99%

Piperidinium-based Ionic liquids

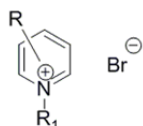
Bis(trifluoromethylsulfonyl)imides, Trifluoromethanesulfonates, Hexafluorophosphates. Tetrafluoroborates. Bromides. Iodides

Catalog No.	CAS No.	Name
FCIL-0045	[608140-12-1]	1-Methyl-1-propylpiperidinium bis(trifluoromethylsulfonyl)imide, 99%
FCIL-0154	[623580-02-9]	1-Butyl-1-methylpiperidinium bis(trifluoromethylsulfonyl)imide, 99%
FCIL-0174	[-]	1-Butyl-1-methylpiperidinium trifluoromethanesulfonate, 99%
FCIL-0175	[-]	1-Methyl-1-propylpiperidinium trifluoromethanesulfonate, 99%
FCIL-0149	[-]	1-Methyl-1-propylpiperidinium hexafluorophosphate, 99%
FCIL-0156	[-]	1-Butyl-1-methylpiperidinium hexafluorophosphate, 99%



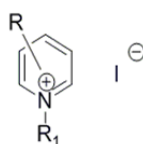
FCIL-0150	[879866-95-2]	1-Methyl-1-propylpiperidinium tetrafluoroborate, 99%
FCIL-0152	[886439-34-5]	1-Butyl-1-methylpiperidinium tetrafluoroborate, 99%
FCIL-0090	[88840-42-0]	1-Methyl-1-propylpiperidinium bromide, 99%
FCIL-0153	[94280-72-5]	1-Butyl-1-methylpiperidinium bromide, 99%
FCIL-0169	[37971-78-1]	1-Butyl-1-methylpiperidinium iodide, >98%
FCIL-0170	[17874-63-4]	1-Methyl-1-propylpiperidinium iodide, >98%

Pyridinium-based Ionic liquids



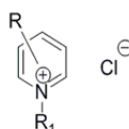
Bromides

Catalog No.	CAS No.	Name
FCIL-0078	[26576-85-2]	1-Butyl-3-methylpyridinium bromide, 99%
FCIL-0082	[65350-59-6]	1-Butyl-4-methylpyridinium bromide, 99%
FCIL-0086	[874-80-6]	1-Butylpyridinium bromide, 99%
FCIL-0128	[26576-84-1]	1-Butyl-2-methylpyridinium bromide, 99%
FCIL-0130	[74440-81-6]	1-Hexylpyridinium bromide, 99%
FCIL-0171	[1906-79-2]	1-Ethylpyridinium bromide, 99%
FCIL-0221	[5411-09-6]	1-Propyl-2-methylpyridinium bromide, >99%
FCIL-0222	[67021-55-0]	1-Propyl-3-methylpyridinium bromide, >99%
FCIL-0223	[70850-58-7]	1-Propyl-4-methylpyridinium bromide, >99%
FCIL-0224	[873-71-2]	1-Propylpyridinium bromide, 99%
FCIL-0225	[32353-50-7]	1-Ethyl-2-methylpyridinium bromide, >99%
FCIL-0226	[54778-76-6]	1-Ethyl-3-methylpyridinium bromide, >99%
FCIL-0227	[32353-49-4]	1-Ethyl-4-methylpyridinium bromide, >99%



Iodides

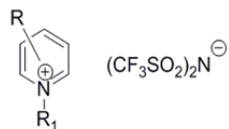
Catalog No.	CAS No.	Name
FCIL-0173	[872-90-2]	1-Ethylpyridinium iodide, >98%
FCIL-0175	[874-81-7]	1-Butylpyridinium iodide, >98%
FCIL-0177	[7324-00-7]	1-Hexylpyridinium iodide, >98%
FCIL-0183	[13311-31-4]	1-Butyl-2-methylpyridinium iodide, >98%
FCIL-0184	[258273-67-5]	1-Butyl-3-methylpyridinium iodide, >98%
FCIL-0185	[32353-64-3]	1-Butyl-4-methylpyridinium iodide, >98%
FCIL-0253	[39868-02-5]	1-Propylpyridinium iodide, >98%



Chlorides

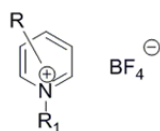
Catalog No.	CAS No.	Name
FCIL-0079	[125652-55-3]	1-Butyl-3-methylpyridinium chloride, >98%
FCIL-0083	[112400-86-9]	1-Butyl-4-methylpyridinium chloride, >98%
FCIL-0087	[1124-64-7]	1-Butylpyridinium chloride, >98%
FCIL-0129	[112400-85-8]	1-Butyl-2-methylpyridinium chloride, >98%
FCIL-0131	[6220-15-1]	1-Hexylpyridinium chloride, >98%

Bis(trifluoromethylsulfonyl)imides



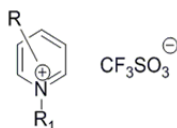
Catalog No.	CAS No.	Name
FCIL-0211	[712354-97-7]	1-Ethylpyridinium bis(trifluoromethylsulfonyl)imide, 99%
FCIL-0212	[-]	1-Propylpyridinium bis(trifluoromethylsulfonyl)imide, 99%
FCIL-0213	[187863-42-9]	1-Butylpyridinium bis(trifluoromethylsulfonyl)imide, 99%
FCIL-0214	[841251-37-4]	1-Ethyl-3-methylpyridinium bis(trifluoromethylsulfonyl)imide, 99%
FCIL-0215	[817575-06-7]	3-Methyl-1-propylpyridinium bis(trifluoromethylsulfonyl)imide, 99%
FCIL-0216	[344790-86-9]	1-Butyl-3-methylpyridinium bis(trifluoromethylsulfonyl)imide, 99%
FCIL-0217	[712355-03-8]	1-Ethyl-4-methylpyridinium bis(trifluoromethylsulfonyl)imide, 99%
FCIL-0218	[-]	4-Methyl-1-propylpyridinium bis(trifluoromethylsulfonyl)imide, 99%
FCIL-0219	[475681-62-0]	1-Butyl-4-methylpyridinium bis(trifluoromethylsulfonyl)imide, 99%
FCIL-0228	[384347-09-5]	1-Butyl-2-methylpyridinium bis(trifluoromethylsulfonyl)imide, 99%
FCIL-0247	[712354-99-9]	1-Ethyl-2-methylpyridinium bis(trifluoromethylsulfonyl)imide, 99%
FCIL-0248	[-]	2-Methyl-1-propylpyridinium bis(trifluoromethylsulfonyl)imide, 99%

Tetrafluoroborates



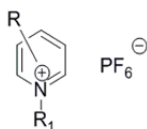
Catalog No.	CAS No.	Name
FCIL-0081	[845835-03-2]	1-Butyl-3-methylpyridinium hexafluorophosphate, 99%
FCIL-0085	[401788-99-6]	1-Butyl-4-methylpyridinium hexafluorophosphate, 99%
FCIL-0089	[186088-50-6]	1-Butylpyridinium hexafluorophosphate, 99%
FCIL-0107	[103173-73-5]	1-Ethylpyridinium hexafluorophosphate, 99%
FCIL-0108	[797789-00-5]	1-Hexylpyridinium hexafluorophosphate, 99%
FCIL-0111	[-]	1-Butyl-2-methylpyridinium hexafluorophosphate, 99%
FCIL-0252	[-]	1-Propylpyridinium hexafluorophosphate, 99%

Triflates

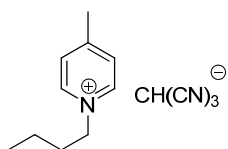


Catalog No.	CAS No.	Name
FCIL-0178	[-]	1-Butyl-2-methylpyridinium trifluoromethanesulfonate, 99%
FCIL-0179	[857841-32-8]	1-Butyl-3-methylpyridinium trifluoromethanesulfonate, 99%
FCIL-0180	[882172-79-4]	1-Butyl-4-methylpyridinium trifluoromethanesulfonate, 99%
FCIL-0181	[623167-81-7]	1-Hexylpyridinium trifluoromethanesulfonate, 99%
FCIL-0182	[390423-43-5]	1-Butylpyridinium trifluoromethanesulfonate, 99%
FCIL-0186	[3878-80-6]	1-Ethylpyridinium trifluoromethanesulfonate, 99%
FCIL-0250	[-]	1-Propylpyridinium trifluoromethanesulfonate, 99%

Hexafluorophosphates

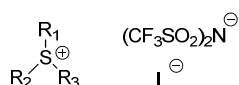


Catalog No.	CAS No.	Name
FCIL-0080	[845835-03-2]	1-Butyl-3-methylpyridinium hexafluorophosphate, 99%
FCIL-0084	[401788-99-6]	1-Butyl-4-methylpyridinium hexafluorophosphate, 99%
FCIL-0088	[186088-50-6]	1-Butylpyridinium hexafluorophosphate, 99%
FCIL-0114	[797789-00-5]	1-Hexylpyridinium hexafluorophosphate, 99%
FCIL-0127	[-]	1-Butyl-2-methylpyridinium hexafluorophosphate, 99%
FCIL-0172	[103173-73-5]	1-Ethylpyridinium hexafluorophosphate, 99%
FCIL-0251	[-]	1-Propylpyridinium hexafluorophosphate, 99%

**Tricvanomethanide**

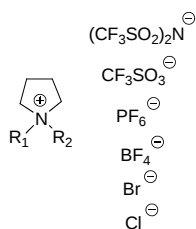
Catalog No.	CAS No.	Name
FCIL-0319	[-]	1-Butyl-4-methylpyridinium tricyanomethanide, 98%

Sulfonium-based Ionic liquids

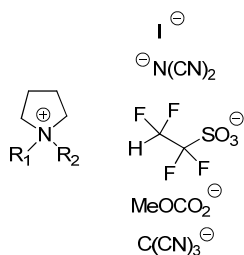
**Bis(trifluoromethylsulfonyl)imides, Iodides**

Catalog No.	CAS No.	Name
FCIL-0030	[321746-49-0]	Triethylsulfonium bis(trifluoromethylsulfonyl)imide, 99%
FCIL-0031	[792188-85-3]	Diethylmethylsulfonium bis(trifluoromethylsulfonyl)imide, 99%
FCIL-0258	[1829-92-1]	Triethylsulfonium iodide, >98%
FCIL-0259	[2181-42-2]	Trimethylsulfonium iodide, >98%

Pyrrolidinium-based Ionic liquids

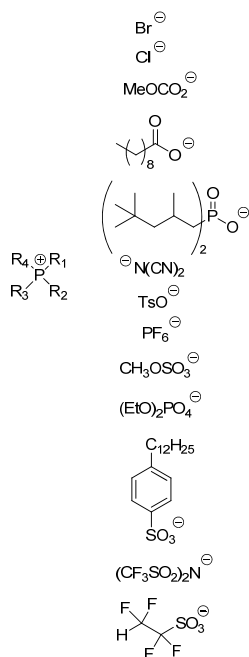
**Bis(trifluoromethylsulfonyl)imides, Trifluoromethanesulfonates, Hexafluorophosphates, Tetrafluoroborates, Bromides, Chlorides**

Catalog No.	CAS No.	Name
FCIL-0035	[223437-11-4]	1-Butyl-1-methylpyrrolidinium bis(trifluoromethylsulfonyl)imide, 99%
FCIL-0044	[223437-05-6]	1-Methyl-1-propylpyrrolidinium bis(trifluoromethylsulfonyl)imide, 99%
FCIL-0121	[927021-43-0]	1-Methyl-1-octylpyrrolidinium bis(trifluoromethylsulfonyl)imide, 99%
FCIL-0167	[223436-99-5]	1-Ethyl-1-methylpyrrolidinium bis(trifluoromethylsulfonyl)imide, 99%
FCIL-0113	[367522-96-1]	1-Butyl-1-methylpyrrolidinium trifluoromethanesulfonate, 99%
FCIL-0162	[-]	1-Methyl-1-propylpyrrolidinium trifluoromethanesulfonate, 99%
FCIL-0168	[893443-18-0]	1-Ethyl-1-methylpyrrolidinium trifluoromethanesulfonate, 99%
FCIL-0076	[330671-29-9]	1-Butyl-1-methylpyrrolidinium hexafluorophosphate, 99%
FCIL-0148	[327022-58-2]	1-Methyl-1-propylpyrrolidinium hexafluorophosphate, 99%
FCIL-0166	[121057-90-7]	1-Ethyl-1-methylpyrrolidinium hexafluorophosphate, 99%
FCIL-0077	[345984-11-4]	1-Butyl-1-methylpyrrolidinium tetrafluoroborate, 99%
FCIL-0147	[327022-59-3]	1-Methyl-1-propylpyrrolidinium tetrafluoroborate, >98%
FCIL-0165	[117947-85-0]	1-Ethyl-1-methylpyrrolidinium tetrafluoroborate, >98%
FCIL-0074	[93457-69-3]	1-Butyl-1-methylpyrrolidinium bromide, 99%
FCIL-0145	[608140-09-6]	1-Methyl-1-propylpyrrolidinium bromide, 99%
FCIL-0163	[69227-51-6]	1-Ethyl-1-methylpyrrolidinium bromide, 99%
FCIL-0075	[479500-35-1]	1-Butyl-1-methylpyrrolidinium chloride, 99%
FCIL-0146	[528818-82-8]	1-Methyl-1-propylpyrrolidinium chloride, >98%

Iodides, Dicyanamides, 1,1,2,2-Tetrafluoroethanesulfonates, Methylcarbonates


Catalog No.	CAS No.	Name
FCIL-0050	[56511-17-2]	1-Butyl-1-methylpyrrolidinium iodide, >98%
FCIL-0161	[56511-19-4]	1-Methyl-1-propylpyrrolidinium iodide, >98%
FCIL-0164	[4186-68-9]	1-Ethyl-1-methylpyrrolidinium iodide, >98%
FCIL-0041	[370865-80-8]	1-Butyl-1-methylpyrrolidinium dicyanamide, >98%
FCIL-0249	[370865-80-8]	1-Methyl-1-propylpyrrolidinium dicyanamide, >98%
FCIL-0235	[-]	1-Butyl-1-methylpyrrolidinium 1,1,2,2-tetrafluoroethanesulfonate, 99%
FCIL-0236	[-]	1-Methyl-1-propylpyrrolidinium 1,1,2,2-tetrafluoroethanesulfonate, >98%
FCIL-0029	[-]	1-Butyl-1-methylpyrrolidinium methylcarbonate, >97%, ~50% in MeOH
FCIL-0318	[-]	1-Butyl-1-methylpyrrolidinium tricyanomethanide, 98%

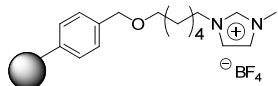
Phosphonium-based Ionic liquids



Catalog No.	CAS No.	Name
FCIN-0007	[654057-97-3]	Trihexyltetradecylphosphonium bromide, >95%
FCIN-0014	[3115-68-2]	Tetrabutylphosphonium bromide, >95%
FCIN-0016	[23906-97-0]	Tetraoctylphosphonium bromide, >95%
FCIN-0006	[258864-54-9]	Trihexyltetradecylphosphonium chloride, >95%
FCIN-0017	[81741-28-8]	Tributyltetradecylphosphonium chloride, >95%
FCIN-0015	[2304-30-5]	Tetrabutylphosphonium chloride, >95%
FCIN-0030	[120256-45-3]	Tributylmethylphosphonium methylcarbonate, >97%, ~50% in MeOH
FCIN-0031	[-]	Trioctylmethylphosphonium methylcarbonate, >97%, ~50% in MeOH
FCIN-0008	[465527-65-5]	Trihexyltetradecylphosphonium decanoate, >95%
FCIN-0009	[465527-58-6]	Trihexyltetradecylphosphonium bis(2,4,4-trimethylpentyl)phosphinate, >95%
FCIN-0010	[701921-71-3]	Trihexyltetradecylphosphonium dicyanamide, >95%
FCIN-0011	[344774-05-6]	Triisobutylmethylphosphonium tosylate, >95%
FCIN-0012	[374683-44-0]	Trihexyltetradecylphosphonium hexafluorophosphate, >95%
FCIN-0013	[69056-62-8]	Tributylmethylphosphonium methyl sulfate, >95%
FCIN-0018	[20445-94-7]	Ethyltributylphosphonium diethyl phosphate, >95%
FCIN-0019	[-]	Tributyltetradecylphosphonium dodecylbenzenesulfonate, >95%
FCIN-0021	[460092-03-9]	Trihexyltetradecylphosphonium bis(trifluoromethylsulfonyl)imide, >98%
FCIL-0246	[-]	Tributylmethylphosphonium 1,1,2,2-tetrafluoroethanesulfonate, 99%

Speciality for Ionic liquids

Polymer-Supported Ionic Liquid, PSIL

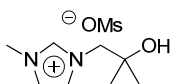


Catalog No.	CAS No.	Name
FC-3001	[-]	High Loading Polymer-Supported Ionic Liquid (Ionic Resin)
FC-3002	[-]	Low Loading Polymer-Supported Ionic Liquid (Ionic Resin)

References

1. Dong Wook Kim and Dae Yoon Chi. Polymer-Supported Ionic Liquids: Imidazolium Salts as Catalysts for Nucleophilic Substitution Reactions Including Fluorinations. *Angew. Chem. Int. Ed.* **2004**, 43, 483-485.

[mim-^tOH][OMs] (Magic S_N2 IL)

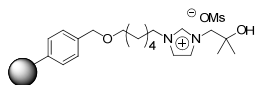


Catalog No.	CAS No.	Name
FC-3003	[1006900-57-7]	1-(2-Hydroxy-2-methyl-n-propyl)-3-methylimidazolium methanesulfonate

References

1. Chi, D. Y. et al. S_N2 fluorination reactions in ionic liquids: a mechanistic study towards solvent engineering. *Org. Biomol. Chem.*, **2011**, 9, 418-422
2. Shinde, S. S.; Chi, H. M.; Lee, B. S.; Chi, D. Y. *t*-Alcohol functionalized imidazolium ionic liquids: Catalysts for mild nucleophilic substitution reactions at room temperature. *Tetrahedron Lett.*, **2009**, 50, 6654-6657
3. Shinde, S. S.; Lee, B. S.; Chi, D. Y. Synergistic effect of two solvents, *tert*-alcohol and ionic liquid, in one molecule in nucleophilic fluorination. *Org. Lett.*, **2008**, 10, 733-735

PS [him-^tOH][OMs] (Magic S_N2 Resin)



Catalog No.	CAS No.	Name
FC-3004	[-]	Polystyrene-supported 1-(2-hydroxy-2-methyl-n-propyl)-3-hexylimidazolium methanesulfonate

References

1. Shinde, S. S.; Lee, B. S.; Chi, D. Y. Polymer-supported protic functionalized ionic liquids for nucleophilic substitution reactions: superior catalytic activity compared to other ionic resins. *Tetrahedron Lett.*, **2008**, 49, 4245-4248

FutureChem product is updated anytime.

Visit www.futurechem.co.kr

You can download New FutureChem Catalog
at FutureChem website.

DISPOSABLE WARES

For saving radioactivity, rapid determination of reaction/Q.C., fast production process & your qualified radio-lab work

(for more details, visit FutureChem website)

-Radio-Cap

**(Radio-Cap_A , Radio-Cap_B, Radio-Cap_C, Radio-Cap_R,
Radio-Cap_{NH}, Radio-Cap_{diol}, Radio-Cap_{COOH})**

[Click this! - Brochure of Radio-Cap](#)

FC-D1011

Radio-Cap_A

Radio-Cap_A

Packing material: Silica gel (Merck), 100-200 mesh (100-50 um)

Contents of package

- 200 capillaries (FC-D1011-01), 110 (H) x 1.0 (I.D.)
- 2 Supports (FC-D1000-02)
- 2 Silicon adaptors (FCD1000-03)
- 1 Silicon bulb (FC-D1000-04)

Utility

Fast determination of

- Reaction progress
- Tracking radio-substance
- Metabolism study
- Quality control
- Calculate RCY

Order Unit

1 pack: 150,000 (won), (USD 140.00)

FC-D1012

Radio-Cap_B

Radio-Cap_B

Packing material: Silica gel (Merck), 200-400 mesh (50-25 um)

Contents of package

- 200 capillaries (FC-D1012-01), 110 (H) x 1.0 (I.D.)
- 2 Supports (FC-D1000-02)
- 2 Silicon adaptors (FCD1000-03)
- 1 Silicon bulb (FC-D1000-04)

Order Unit

1 pack: 150,000 (won), (USD 140.00)

FC-D1013

Radio-Cap_C

Radio-Cap_C

Packing material: Silica gel (Merck), >400 mesh (<25 um)

Contents of package

- 200 capillaries (FC-D1013-01), 110 (H) x 1.0 (I.D.)
- 2 Supports (FC-D1000-02)
- 2 Silicon adaptors (FCD1000-03)
- 1 Silicon bulb (FC-D1000-04)

Order Unit

1 pack: 150,000 (won), (USD 140.00)

FC-D1021

Radio-Cap_R

Radio-Cap_R

Packing material: C-18 Silica gel (Merck)

Contents of package

- 200 capillaries (FC-D1021-01), 110 (H) x 1.0 (I.D.)
- 100 capillaries (FC-D1021-02), 110 (H) x 1.0 (I.D.)
- 2 Supports (FC-D1000-02)
- 2 Silicon adaptors (FCD1000-03)
- 1 Silicon bulb (FC-D1000-04)

Order Unit

FC-D1021-01, 1 pack (200 capillaries) : 300,000 (won), (USD 280.00)

FC-D1021-02, 1 pack (100 capillaries) : 180,000 (won), (USD 160.00)

FC-D1022

Radio-Cap_{NH}

Radio-Cap_{NH}

Packing material: NH Silica gel (Fuji Silysia Chemical)

Contents of package

- 200 capillaries (FC-D1022-01), 110 (H) x 1.0 (I.D.)
- 2 Supports (FC-D1000-02)
- 2 Silicon adaptors (FCD1000-03)
- 1 Silicon bulb (FC-D1000-04)

Order Unit

1 pack: 200,000 (won), (USD 170.00)

FC-D1023

Radio-Cap_{diol}

Radio-Cap_{diol}

Packing material: Diol Silica gel (Fuji Silysia Chemical)

Contents of package

- 200 capillaries (FC-D1023-01), 110 (H) x 1.0 (I.D.)
- 2 Supports (FC-D1000-02)
- 2 Silicon adaptors (FCD1000-03)
- 1 Silicon bulb (FC-D1000-04)

Order Unit

1 pack: 210,000 (won), (USD 185.00)

FC-D1024

Radio-Cap_{COOH}

Radio-Cap_{COOH}

Packing material: COOH Silica gel (Fuji Silysia Chemical)

Contents of package

- 200 capillaries (FC-D1024-01), 110 (H) x 1.0 (I.D.)
- 2 Supports (FC-D1000-02)
- 2 Silicon adaptors (FCD1000-03)
- 1 Silicon bulb (FC-D1000-04)

Order Unit

1 pack: 220,000 (won), (USD 200.00)

Contact to FutureChem

FutureChem Co. Ltd.,

TEL : +82-2-3010-8515, 8517

FAX : +82-2-3010-8516

E-mail : sales@futurechem.co.kr

Website: <http://www.futurechem.co.kr>

GMFC



Good Morning FC

-High Purity Solvents and Reagents

6308 Acetonitrile, 99.9%, HPLC/SPECTRO

Acetonitrile, ACN

[75-05-8]

CH₃CN MW 41.05

Order Unit

4 L X 1 Bottle

4 L X 4 Bottles/Box

Cross Reference

J.T.Baker : 9017, TEDIA : AS-1122

GMFC-0001 Pd(PPh₃)₄

Tetrakis(triphenylphosphine)palladium(0)

[14221-01-3]

Pd[(C₆H₅)₃P]₄ MW 1155.56

>98%

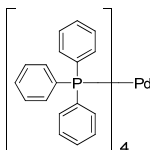
Order Unit (₩)

1 g: 50,000

5 g: 142,000

25 g: 600,000

50 g: 1,200,000

**GMFC-0002 Pd(dba)₂**

Bis(dibenzylideneacetone)palladium(0)

[32005-36-0]

(C₆H₅CH=CHCOCH=CHC₆H₅)₂Pd

MW 575.00

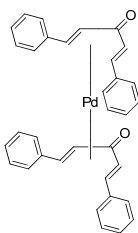
Order Unit (₩)

1 g: 50,000

5 g: 170,000

25 g: 711,000

50 g: 1,422,000

**GMFC-0003 1-Boc-4-methylaminopiperidine**

tert-Butyl 4-(methylamino)piperidine-1-carboxylate

[147539-41-1]

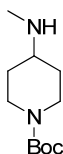
C₁₁H₂₂N₂O₂

MW 214.30

¹H NMR, ESI-MS, purity

>98% (HPLC)

Order Unit (₩)

**GMFC-0004 2-Chloro-5-ethylpyrimidine**

2-Chloro-5-ethylpyrimidine

[111196-81-7]

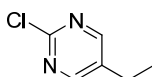
C₆H₇ClN₂

MW 142.59

¹H NMR, purity

>98% (HPLC)

Order Unit (₩)



Index**A-85380** (page 5-6)

FC-2111 Tributylstannyl-A-85380 precursor

FC-2112 5-I-A-85380

Amino acid derivatives (page 30-31)

FC-8101 Anap sodium salt

FC-8102 Bpy-Ala trihydrochloride

FC-8103 HQ-Ala dihydrochloride

Biotin (page 25, 30)

FC-6061 (+)-Biotin azidopropylamide

FC-6062 (+)-Biotin-EG₄-N₃FC-6063 (+)-Biotin-EG₄-NH-glutaric acid**Chemicals** (page 28-30)

FC-1037 Thymidine

FC-3005 1-(2-Hydroxy-2-methylpropyl)imidazole

FC-3100 2-Fluoroethanol

FC-3101 2-Fluoroethanol tosylate

FC-3102 3-Fluoropropan-1-ol

FC-3103 3-Fluoropropanol tosylate

FC-3104 2-Fluoroethanol mesylate

FC-3105 3-Fluoropropanol mesylate

FC-6017 4-Formyl-*N,N,N*-trimethylanilinium triflate

FC-6019 2-Nitroimidazole

FC-6020 TBAF(*t*-BuOH)₄FC-6042 2-*O*-Tetrahydropyranyl-1,3-ditosylpropanetriol

FC-6044 TBDMS-Cl

FC-6050 2-(3-Methanesulfonyloxypropoxy)naphthalene

FC-6051 2-(2-Methanesulfonyloxypropoxy)naphthalene

FC-6052 2-[2-(*p*-Toluene)sulfonyloxypropoxy]naphthalene

FC-6201 Triethylene glycol-1-mesylate

FC-6202 Triethylene glycol-1-methanesulfonate-8-OTBDMS

FC-6203 1-*N*-Boc-amino-3,6-dioxo-8-octanol mesylate

FC-7010 3-Fluoro-2-OTHP-propyl tosylate

FC-8111 Hydrazinium Carboxylate

Click Chemicals (page 22-26)

FC-6001 1,8-Diazido-3,6-dioxaoctane

FC-6002 1,11-Diazido-3,6,9-trioxaundecane

FC-6003 8-Azido-3,6-dioxo-1-octanol

FC-6004 11-Azido-3,6,9-trioxa-1-undecanol

FC-6005 1-Amino-8-azido-3,6-dioxaoctane

FC-6006 1-Amino-11-azido-3,6,9-trioxaundecane

FC-6007 8-Azido-3,6-dioxo-1-octanol mesylate

FC-6008 11-Azido-3,6,9-trioxa-1-undecanol mesylate

FC-6009 1-Azido-8-fluoro-3,6-dioxaoctane

FC-6010 1-Azido-11-fluoro-3,6,9-trioxaundecane

FC-6011 11-Azido-3,6,9-trioxaundecanoic acid

FC-6012 14-Azido-3,6,9,12-tetraoxatetradecanoic acid

FC-6015 3,6,9-Trioxadodec-11-yn-1-ol mesylate

FC-6016 3,6,9,12-Tetraoxapentadec-14-yn-1-ol mesylate

FC-6030 12-Fluoro-4,7,10-trioxa-1-dodecyne

FC-6031 15-Fluoro-4,7,10,13-tetraoxa-1-pentadecyne

FC-6032 14-Azido-3,6,9,12-tetraoxa-1-tetradecanol

FC-6033 1,14-Diazido-3,6,9,12-tetraoxatetradecane

FC-6034 14-Azido-3,6,9,12-tetraoxa-1-tetradecanol mesylate

FC-6035 1-Azido-14-fluoro-3,6,9,12-tetraoxatetradecane

FC-6036 14-Azido-3,6,9,12-tetraoxa-*n*-tetradecanyleamine

FC-6037 3,6,9,12,15-Pentaoxaoctadec-17-yn-1-ol mesylate

FC-6038 18-Fluoro-4,7,10,13,16-pentaoxa-1-octadecyne

FC-6039 13-Azido-5-aza-8,11-dioxo-4-oxotridecanoic acid

FC-6040 16-Azido-5-aza-4-oxo-8,11,14-trioxahexadecanoic acid

FC-6041 3-Azidopropanesulfonyl chloride

FC-6045 Azido-acetic acid

FC-6046 1-Azido-1-deoxy- β -*D*-galactopyranoside tetraacetate

FC-6047 3-Azidopropylamine

FC-6048 Succinimidyl 4-azidobutyrate

FC-6049 Propargyl mesylate

FC-6056 Propiolic acid NHS ester

FC-6057 *N*-Propargyl maleimideFC-6060 *N*-[3-(*tert*-Butyldimethylsilyl)propargyl]-*N*-propargyl-*N*-(3-trimethylsilylpropargyl)amineFC-6066 *N*-[3-(*tert*-Butyldimethylsilyl)propargyl]-*N*-propargyl-*N*-3-amino-propane-1-sulfonamideFC-6067 2-[4-[*N*-[(3-(*tert*-Butyldimethylsilyl)propargyl)-*N*-propargyl]methyl]-1-*H*-1,2,3-triazol-1-yl]acetic acidFC-6068 *N*-[3-(*tert*-Butyldimethylsilyl)propargyl]-*N*-propargyl-*N*-3-(Boc-amino)propane-1-sulfonamideFC-6070 Fmoc-L-Asn(*N*-propargyl)-OHFC-6071 Fmoc-D-Asn(*N*-propargyl)-OHFC-6072 Fmoc-L-Asn(*N*-3-azidopropyl)-OHFC-6073 Fmoc-D-Asn(*N*-3-azidopropyl)-OHFC-6090 *N*-[3-(Triethoxysilyl)propyl]-2-azidoacetamideFC-6091 *N*-[3-(Triethoxysilyl)propyl]-pent-4-ynamide

FC-6211 1-[Boc-aminooxy]acetamido-3,6-dioxo-8-azide

Disposable wares (page 46)FC-D1011 Radio-Cap_AFC-D1012 Radio-Cap_BFC-D1013 Radio-Cap_CFC-D1021 Radio-Cap_RFC-D1022 Radio-Cap_{NH}FC-D1023 Radio-Cap_{diol}FC-D1024 Radio-Cap_{COOH}**EDTMP** (page 5)

FC-2091 EDTMP

Fallypride (page 8)

FC-3601 Tosyl-Fallypride

FC-3602 Fallypride

FAZA (page 7)

FC-2951 FAZA precursor

FC-2952 FAZA authentic

FC-2953 Ts-AZA

FBT (page 8)

FC-3201 FBT precursor

FC-3202 FBT authentic

FDG (page 1)

AFC-1001 FDG precursor

AFC-1002 FDG authentic

AFC-1003 FDG-OH

AFC-1004 Acyl-FDG

FES (page 5)

FC-2071 FES precursor (MOM)

FC-2072 FES authentic

FC-2073 FES precursor (EOM)

FET (page 7)

FC-2971 TET (L-FET precursor)

FC-2972 L-FET (TFA salt)

FC-2973 D-FET (TFA salt)

FEBG (page 2-3)

AFC-5001 FEBG precursor

AFC-5002 FEBG authentic

FPBG (page 2)

AFC-4001 FPBG precursor

AFC-4002 FPBG authentic

FHBG (page 4)

FC-1051 Tosyl-FHBG precursor

FC-1052 FHBG authentic

FIAU (page 6)

FC-2701 FIAU precursor (FTAU)

FC-2702 FIAU authentic

FFAU

FC-2802 FFAU authentic

FEAU

FC-2902 FEAU authentic

FMAU

FC-2912 FMAU authentic

TMS-VDU

FC-2941 TMS-VDU

FMISO (page 4)

FC-2041 FMISO precursor

FC-2042 FMISO authentic

FLT (page 3)

FC-1031 FLT (Tr, Ns, Boc) precursor

FC-1032 FLT authentic

FC-1035 FLT (Tr, OH, NH)

FC-1036 FLT (Tr, Ns, NH)

Fluorescence dye (page 15-16) **New**

FC-8001 R19-S

FC-8011 FCR-675 carboxylic acid

FC-8012 FNR-675 NHS ester

FC-8013 AngioFlamma™675-RGD

FC-8021 FCR-648 carboxylic acid

FC-8022 FNR-648 NHS ester

FC-8031 FCI-774 carboxylic acid

FC-8032 FNI-774 NHS ester

Flumazenil (page 1, 3)

AFC-3001 Norflumazenil

AFC-3002 Flumazenil authentic

SFC-201001 Mesyl-flumazenil

SFC-201002 3-(2-Fluoro)flumazenil authentic

SFC-201003 Tosyl-flumazenil

GMFC (Good Morning FC, page 48)

6308 Acetonitrile, 99.9%, HPLC/SPECTRO

GMFC-0001 Pd(PPh₃)₄

GMFC-0002 Pd(dba)₂

GMFC-0003 1-Boc-4-methylaminopiperidine

GMFC-0004 2-Chloro-5-ethylpyrimidine

Iomazenil (page 2)

AFC-3011 Tributylstannyl-iomazenil

AFC-3012 Iomazenil authentic

AFC-3013 Noriomazenil

Hippuric acid (page 4)

FC-1071 Tributylstannyl-Hippuric acid

FC-1072 Hippuric acid authentic

HMPAO (page 5)

FC-2061 HMPAO

Hynic (page 8)

FC-3401 Succinimidyl-Hynic hydrochloride

FC-3402 Succinimidyl-N-Boc-Hynic

IBZM (page 6)

FC-2601 (S)-(-)-BZM

FC-2602 (S)-(-)-IBZM

Intermediates of the Carbapenem (page 32-33) **New**

CyC-1001 4-AA, AOSA

CyC-1002 4-BMA

CyC-1003 MAP(P-2)

CyC-1004 Protected Meropenem

CyC-1005 Side chain for Meropenem

CyC-1006 Meropenem, crude

CyC-1007 Me-7(p-3)

Ionic liquids (page 35-44) **New**

Ammonium-based Ionic liquids (page 39)

Imidazolium-based Ionic liquids (page 35-38)

Phosphonium-based Ionic liquids (page 43)

Piperidinium-based Ionic liquids (page 39)

Pyridinium-based Ionic liquids (page 40-41)

Pyrrolidinium-based Ionic liquids (page 42)

Sulfonium-based Ionic liquids (page 42)

Speciality for Ionic liquids (page 44)

FC-3001 Polymer-Supported Ionic liquid, PSIL-HL

FC-3002 Polymer-Supported Ionic liquid, PSIL-LL

FC-3003 [mim-⁺OH][OMs] (Magic S_N2 IL)

FC-3004 PS[him-⁺OH][OMs] (Magic S_N2 Resin)

L,L-EC (page 8)

FC-3301 L,L-EC

MAG-3 (page 5)

FC-2081 S-Benzoyl MAG-3

Mebrofenin (page 8)

FC-3501 Mebrofenin

Metal Chelating Agents **New**

Bifunctional Chelating Agents (NOTA, DOTA) (page 18-19)

FC-2101 (p-SCN-Bn)-DTPA

FC-2121 (p-SCN-Bn)-NOTA

FC-2122 (p-SCN-Bn)-NOTA -Ga complex

FC-2124 NOTA(tBu)₂

FC-2125	NOTA-NHS ester	FC-1003	IPT authentic
FC-2131	(<i>p</i> -SCN-Bn)-DOTA	FC-1004	Nor- β -CIT
FC-2133	DOTA-tris (tBu) ester	FC-1005	β -CIT authentic
FC-2134	DOTA-NHS ester	FC-1022	FP-CIT (Ioflupane) authentic
FC-6095	3-Azidopropyl-NOTA	FC-1023	FP-CIT tin precursor (Ioflupane precursor)
FC-6096	Propargyl-NOTA	FC-1024	FP-CIT Tosylate precursor
Functionalised Macrocycles (page 18-19)		FC-1025	FP-CIT azetidinium salt
FC-2123	NO ₂ A(tBu)	FC-2001	Nor- β -CFT
FC-2126	DiBoc-TACN	FC-2002	β -CFT authentic
FC-2132	DO ₃ A-tBu-ester		
FC-2135	TrisBoc-cyclen		
MDP (page 4)			
FC-2051	MDP		
MIBG (page 7)			
FC-2961	MTMSBG		
FC-2962	MIBG		
MPPF (page 4)			
FC-1061	MPPF precursor		
FC-1062	MPPF authentic		
Paclitaxel derivatives (page 28)			
FC-6080	<i>n</i> -Bu ₃ Sn-Paclitaxel		
FC-6081	Br-Paclitaxel		
Piceatannol (page 29)			
FC-5001	Piceatannol		
Raclopride (page 1)			
AFC-2001	<i>O</i> -Desmethyleraclopride		
AFC-2002	Raclopride authentic		
Resins (page 31-32) <i>New</i>			
PRSA5002	Aminomethyl resin		
PRSA5009	Wang resin		
PRSA5066	Rink amide AM resin		
PRSC5004	Merrifield resin		
PRSC5055	2-Chlorotrityl chloride resin		
PRSP5011	Polystyrene		
RGD and for Click peptides (page 12-13)			
FC-2201	Protected cyclic RGDyK(NH ₂)		
FC-2202	Deprotected cyclic RGDyK		
FC-2203	Protected cyclic RGDfK(NH ₂)		
FC-2204	Deprotected cyclic RGDfK		
FC-2205	Azido cyclic RGDyK		
FC-2206	Propiolic cyclic RGDyK		
FC-2209	Pentynoic cyclic RGDyK		
FC-2210	Protected azido cyclic RGDfK		
FC-2221	NOTA-cyclic RGDyK		
FC-2222	Ga-NOTA-cyclic RGDyK		
FC-6101	Azido-ApoPep-1		
FC-6102	F-ApoPep-1		
FC-9001	Pra-K-cyclic(CGNKRTRGC)		
Rhenium reagent (page 29)			
FC-6043	[NEt ₄] ₂ [ReBr ₃ (CO) ₃]		
Tropane analogs (page 9-10)			
FC-1001	Tributylstannyl- β -CT		
FC-1002	IPT precursor		