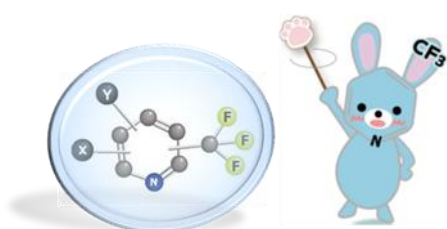


Example of use for CF₃-Pyridine Compounds



< ver.3 >



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List of Compounds

α -CF₃-Pyridine

Abbreviated name	Chemical name	頁
3,2,6-ACTF	3-Amino-2-chloro-6-(trifluoromethyl)pyridine 3-アミノ-2-クロロ-6-(トリフルオロメチル)ピリジン	5
2,3,6-DCTF	2,3-Dichloro-6-(trifluoromethyl)pyridine 2,3-ジクロロ-6-(トリフルオロメチル)ピリジン	6
2,6-ATF	2-Amino-6-(trifluoromethyl)pyridine 2-アミノ-6-(トリフルオロメチル)ピリジン	7
3,6-HmTF	6-(Trifluoromethyl)pyridine-3-methanol 6-(トリフルオロメチル)ピリジン-3-メタノール	8
6-TF-3-CHO	6-(Trifluoromethyl)pyridine-3-carboxaldehyde 6-(トリフルオロメチル)ピリジン-3-カルボキシアルデヒド	9
6-TFNA	6-(Trifluoromethyl)nicotinic acid 6-(トリフルオロメチル)ニコチン酸	10
2,6-HTF-3-CAM	2-Hydroxy-6-(trifluoromethyl)pyridine-3-carboxamide 2-ヒドロキシ-6-(トリフルオロメチル)ピリジン-3-カルボキサミド	11
2,6-CTF-3-CAM	2-Chloro-6-(trifluoromethyl)pyridine-3-carboxamide 2-クロロ-6-(トリフルオロメチル)ピリジン-3-カルボキサミド	12
2,6-CTF	2-Chloro-6-(trifluoromethyl)pyridine 2-クロロ-6-(トリフルオロメチル)ピリジン	13
2,3,4,5,6-TCTF	2,3,4,5-Tetrachloro-6-(trifluoromethyl)pyridine 2,3,4,5-テトラクロロ-6-(トリフルオロメチル)ピリジン	14
6-TF-2-CO ₂ Et	Ethyl 6-(trifluoromethyl)picolinate 6-(トリフルオロメチル)ピコリン酸エチルエステル	15
2,6-CTFNA	2-Chloro-6-(trifluoromethyl)nicotinic acid 2-クロロ-6-(トリフルオロメチル)ニコチン酸	16
2,6-HmTF	6-(trifluoromethyl)pyridine-2-methanol 6-(トリフルオロメチル)ピリジン-2-メタノール	17

β -CF₃-Pyridine

Abbreviated name	Chemical name	頁
2,6,3-DCTF	2,6-Dichloro-3-(trifluoromethyl)pyridine 2,6-ジクロロ-3-(トリフルオロメチル)ピリジン	18
3-TFPA	3-(Trifluoromethyl)picolinic acid 3-(トリフルオロメチル)ピコリン酸	19
2,5-ATF	2-Amino-5-(trifluoromethyl)pyridine 2-アミノ-5-(トリフルオロメチル)ピリジン	20
2,3-ATF	2-Amino-3-(trifluoromethyl)pyridine 2-アミノ-3-(トリフルオロメチル)ピリジン	21
2,5-CmTF	2-Chloromethyl-5-(trifluoromethyl)pyridine 2-クロロメチル-5-(トリフルオロメチル)ピリジン	22
2,3-MTF	2-Mercapto-3-(trifluoromethyl)pyridine 2-メルカプト-3-(トリフルオロメチル)ピリジン	23
3,5-CTF	3-Chloro-5-(trifluoromethyl)pyridine 3-クロロ-5-(トリフルオロメチル)ピリジン	24
2,5,6,3-TCTF	2,5,6-Trichloro-3-(trifluoromethyl)pyridine 2,5,6-トリクロロ-3-(トリフルオロメチル)ピリジン	25
2,3-CTF	2-Chloro-3-(trifluoromethyl)pyridine 2-クロロ-3-(トリフルオロメチル)ピリジン	26
2,3-HTF	2-Hydroxy-3-(trifluoromethyl)pyridine 2-ヒドロキシ-3-(トリフルオロメチル)ピリジン	27

3-TF-2-CO2Et	Ethyl 3-(trifluoromethyl)picolinate 3-(トリフルオロメチル)ピコリン酸エチルエステル	28
2,5-HmTF	5-(Trifluoromethyl)pyridine-2-methanol 5-(トリフルオロメチル)ピリジン-2-メタノール	29
5-TF-2-CO2Et	Ethyl 5-(trifluoromethyl)picolinate 5-(トリフルオロメチル)ピコリン酸エチルエステル	30
3,5-CTF-2-CO2Et	Ethyl 3-chloro-5-(trifluoromethyl)picolinate 3-クロロ-5-(トリフルオロメチル)ピコリン酸エチルエステル	31
2,5-MTF	2-Mercapto-5-(trifluoromethyl)pyridine 2-メルカプト-5-(トリフルオロメチル)ピリジン	32
2,5-HTF	2-Hydroxy-5-(trifluoromethyl)pyridine 2-ヒドロキシ-5-(トリフルオロメチル)ピリジン	33
2,3,5-ACTF	2-Amino-3-chloro-5-(trifluoromethyl)pyridine 2-アミノ-3-クロロ-5-(トリフルオロメチル)ピリジン	34
2,3,5-DCTF	2,3-Dichloro-5-(trifluoromethyl)pyridine 2,3-ジクロロ-5-(トリフルオロメチル)ピリジン	35
2,5-CTF	2-Chloro-5-(trifluoromethyl)pyridine 2-クロロ-5-(トリフルオロメチル)ピリジン	36
3-TF	3-(Trifluoromethyl)pyridine 3-(トリフルオロメチル)ピリジン	37
2,3-HmTF	3-(Trifluoromethyl)pyridine-2-methanol 3-(トリフルオロメチル)ピリジン-2-メタノール	38
5-TF-2-CN	2-Cyano-5-(trifluoromethyl)pyridine 2-シアノ-5-(トリフルオロメチル)ピリジン	39
5-TF-2,3-Bis-CO2Et	Diethyl 5-(trifluoromethyl)pyridine-2,3-dicarboxylate ジエチル 5-(トリフルオロメチル)ピリジン-2,3-ジカルボキシレート	40
2,5,3-HNTF	2-hydroxy-5-nitro-3-(trifluoromethyl)pyridine 2-ヒドロキシ-5-ニトロ-3-(トリフルオロメチル)ピリジン	41
2,5,3-MNTF	2-Mercapto-5-nitro-3-(trifluoromethyl)pyridine 2-メルカプト-5-ニトロ-3-(トリフルオロメチル)ピリジン	42
2,5,3-ANTF	2-Amino-5-nitro-3-(trifluoromethyl)pyridine 2-アミノ-5-ニトロ-3-(トリフルオロメチル)ピリジン	43

γ -CF₃-Pyridine

Abbreviated name	Chemical name	頁
2,6,4-DCTF	2,6-Dichloro-4-(trifluoromethyl)pyridine 2,6-ジクロロ-4-(トリフルオロメチル)ピリジン	44
2,4-CTF	2-Chloro-4-(trifluoromethyl)pyridine 2-クロロ-4-(トリフルオロメチル)ピリジン	45
2,4-ATF	2-Amino-4-(trifluoromethyl)pyridine 2-アミノ-4-(トリフルオロメチル)ピリジン	46
4-TF	4-(Trifluoromethyl)pyridine 4-(トリフルオロメチル)ピリジン	47
4-TFNA	4-(Trifluoromethyl)nicotinic acid 4-(トリフルオロメチル)ニコチン酸	48
2,3,5,6,4-TCTF	2,3,5,6-Tetrachloro-4-(trifluoromethyl)pyridine 2,3,5,6-テトラクロロ-4-(トリフルオロメチル)ピリジン	49
4-TF-2-CO2Et	Ethyl 4-(trifluoromethyl)picolinate 4-(トリフルオロメチル)ピコリン酸エチルエステル	50
2,6,4-ACTF	2-Amino-6-chloro-4-(trifluoromethyl)pyridine 2-アミノ-6-クロロ-4-(トリフルオロメチル)ピリジン	51
2,5,4-DCTF	2,5-Dichloro-4-(trifluoromethyl)pyridine 2,5-ジクロロ-4-(トリフルオロメチル)ピリジン	52
2,6,4-DATF	2,6-Diamino-4-(trifluoromethyl)pyridine 2,6-ジアミノ-4-(トリフルオロメチル)ピリジン	53
2,6,4-CHrTF	2-Chloro-6-hydrazino-4-(trifluoromethyl)pyridine 2-クロロ-6-ヒドラジノ-4-(トリフルオロメチル)ピリジン	54

Bis-CF₃-Pyridine

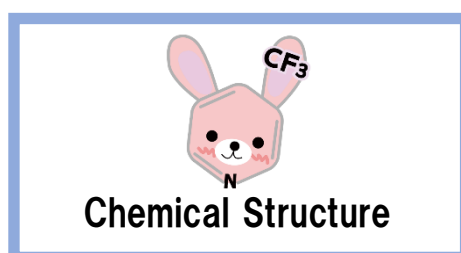
Abbreviated name	Chemical name	頁
2,4,5-CBiTF	2-Chloro-4,5-bis(trifluoromethyl)pyridine 2-クロロ-4,5-ビス(トリフルオロメチル)ピリジン	55
2,3,6-CBiTF	2-Chloro-3,6-bis(trifluoromethyl)pyridine 2-クロロ3,6-ビス(トリフルオロメチル)ピリジン	56
2,6,3,5-DCBiTF	2,6-Dichloro-3,5-bis(trifluoromethyl)pyridine 2,6-ジクロロ-3,5-ビス(トリフルオロメチル)ピリジン	57
3,5-BiTF	3,5-Bis(trifluoromethyl)pyridine 3,5-ビス(トリフルオロメチル)ピリジン	58
2,4,6-CBiTF	2-Chloro-4,6-bis(trifluoromethyl)pyridine 2-クロロ-4,6-ビス(トリフルオロメチル)ピリジン	59
3,5,2,6-DCBiTF	3,5-Dichloro-2,6-bis(trifluoromethyl)pyridine 3,5-ジクロロ-2,6-ビス(トリフルオロメチル)ピリジン	60
2,6-BiTF	2,6-Bis(trifluoromethyl)pyridine 2,6-ビス(トリフルオロメチル)ピリジン	61
2,4,6-ABiTF	2-Amino-4,6-bis(trifluoromethyl)pyridine 2-アミノ-4,6-ビス(トリフルオロメチル)ピリジン	62
2,3,5-ABiTF	2-Amino-3,5-bis(trifluoromethyl)pyridine 2-アミノ-3,5-ビス(トリフルオロメチル)ピリジン	63
2,4,5-HBiTF	2-Hydroxy-4,5-bis(trifluoromethyl)pyridine 2-ヒドロキシ-4,5-ビス(トリフルオロメチル)ピリジン	64

Usage Guide

凡例

Compound's Name (English)

Compound's Name (Japanese)



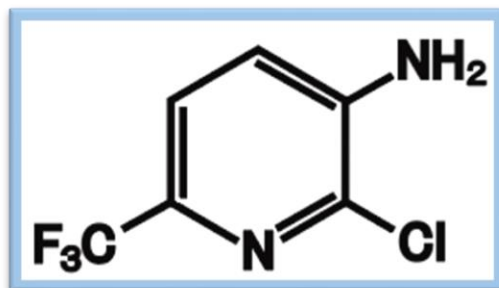
Abbreviated name (略称)

Code No. ISK-O-O

Example of use (使用例)

3-Amino-2-chloro-6-(trifluoromethyl) pyridine

3-アミノ-2-クロロ-6-(トリフルオロメチル)ピリジン



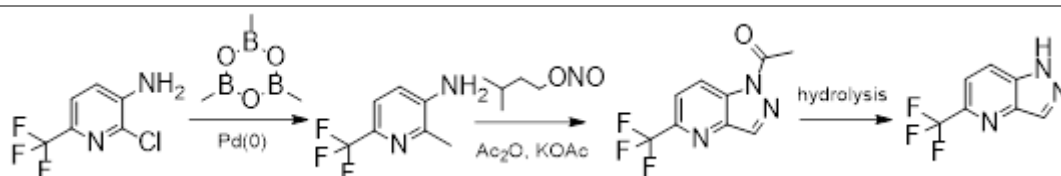
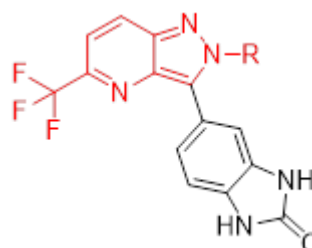
3,2,6-ACTF

ISK-a-1

US 20180111925

(Janssen Pharmaceutica NV, Belg.)

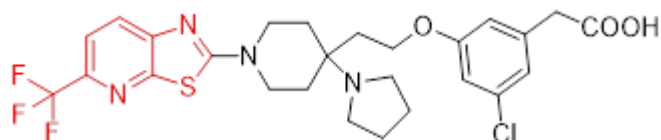
<AMPA receptor modulators>



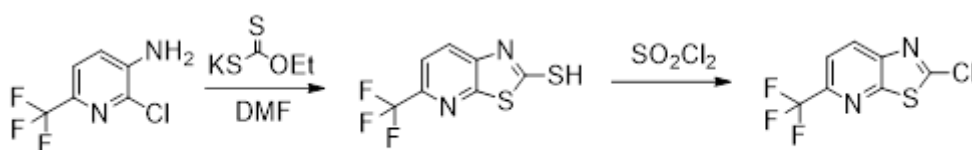
WO 2007023882

(Shionogi & Co., Ltd.)

<DERIVATIVE HAVING PPAR AGONIST
ACTIVITY>



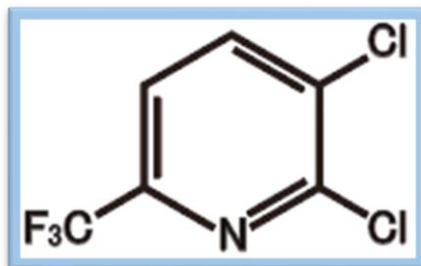
RSC-451061



Synthesis 2018, vol50, 2027-2032

2,3-Dichloro-6-(trifluoromethyl) pyridine

2,3-ジクロロ-6-(トリフルオロメチル)ピリジン



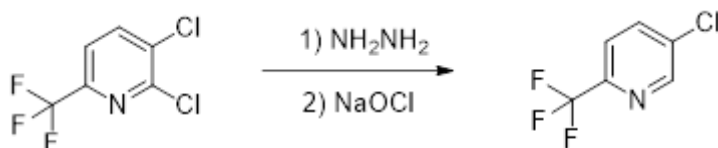
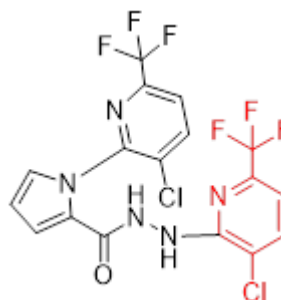
2,3,6-DCTF

ISK-a-2

WO 2009117421

(Kalypsys, Inc., USA)

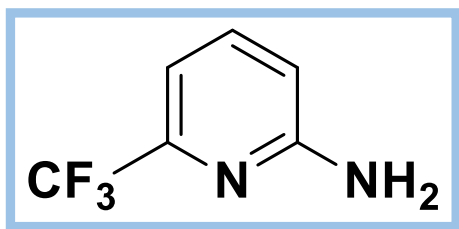
< modulators of GPR119 activity >



US 2013261310 (DOW AGROSCIENCES LLC)

2-Amino-6- (trifluoromethyl) pyridine

2-アミノ-6- (トリフルオロメチル) ピリジン



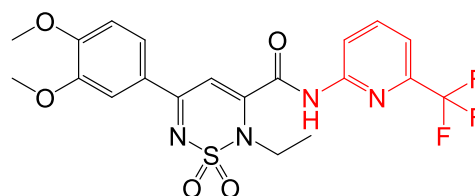
2,6-ATF

ISK-a-3

WO 2020012423

(Richter Gedeon Nyrt., Hung.)

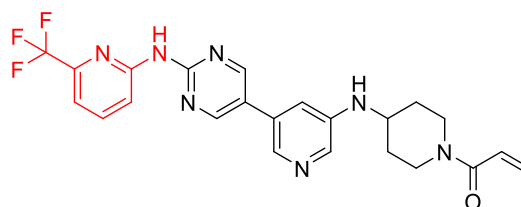
< $\alpha 7$ nicotinic acetylcholine receptor activity
modulators >



WO 2019089512

(Eli Lilly and Company, USA)

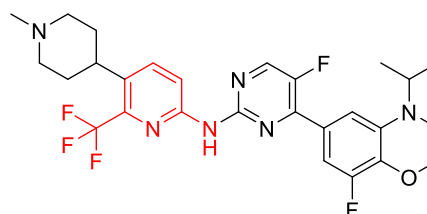
< Btk inhibitors >



WO 2019161224

(GIRAFPHARMA LLC, USA)

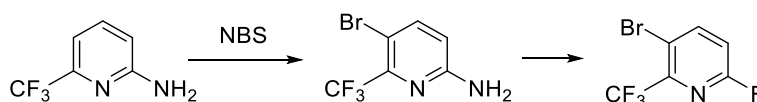
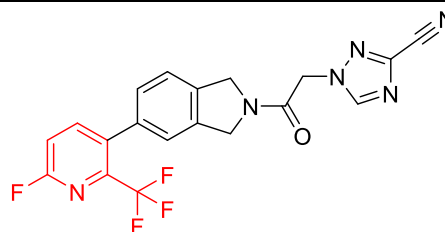
< kinase, especially CDK4 or CDK6, inhibitors for
treating cancer >



WO 20190244049

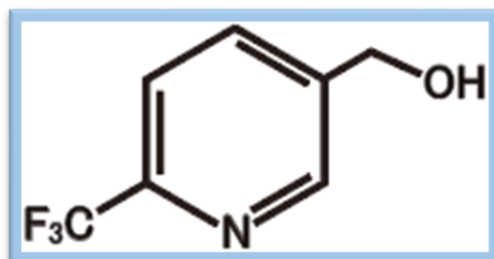
(Novartis AG, Switz.)

< the treatment of leishmaniasis, African
trypanosomiasis and Chagas disease >



6- (Trifluoromethyl) pyridine-3-methanol

6- (トリフルオロメチル) ピリジン-3-メタノール



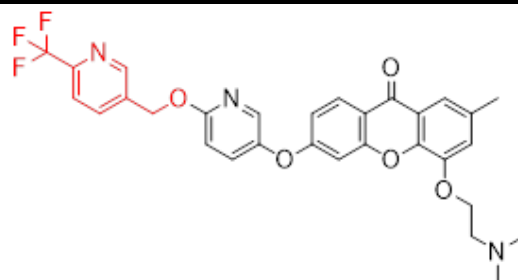
3,6-HmTF

ISK-a-4

WO 2018083635

(AUCKLAND UNISERVICES LIMITED)

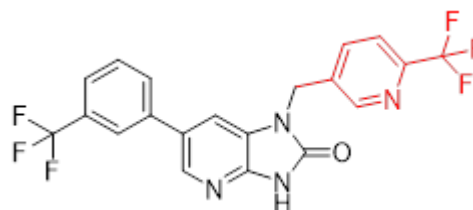
<Colony stimulating factor I receptor (CSF-1R, also known as c-FMS kinase) inhibitory activity>



WO 2018067786

(Janssen Pharmaceutica NV, Belg.)

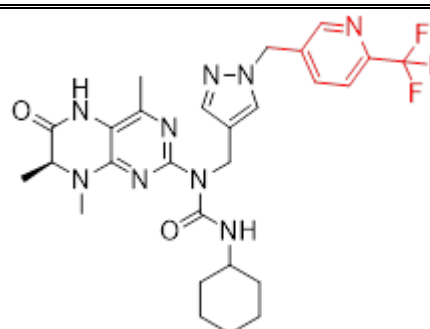
<GluN2B receptor modulators>



US 20190322673

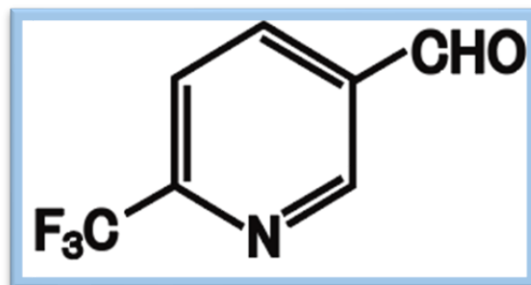
(Vertex Pharmaceuticals Incorporated, USA)

<the treatment of cellular proliferative disorders>



6- (Trifluoromethyl) pyridine-3-carboxaldehyde

6-(トリフルオロメチル)ピリジン-3-カルボキシアルデヒド



6-TF-3-CHO

ISK-a-5

US 20130274259

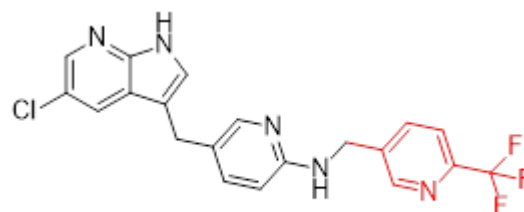
(PLEXXIKON INC., DAIICHSANKYO COMPANY, LIMITED)

<KINASE MODULATION AND INDICATIONS>

WO 2016179412

(PLEXXIKON INC., DAIICHSANKYO COMPANY, LIMITED)

<SYNTHESIS OF 1H-PYRROLO [2,3-B] PYRIDINE>

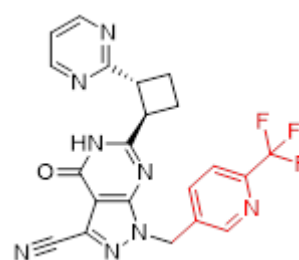


Pexidartinib

WO 2018226771

(MERCK SHARP & DOHME CORP.)

<PYRAZOLOPYRIMIDINE PDE9 INHIBITORS>

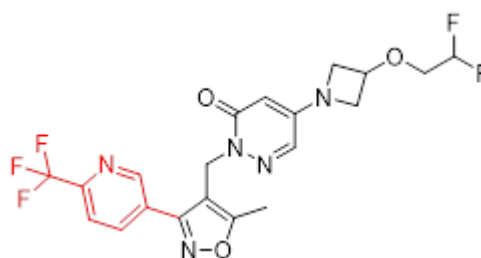


WO 2019238633

(F. HOFFMANN-LA ROCHE AG)

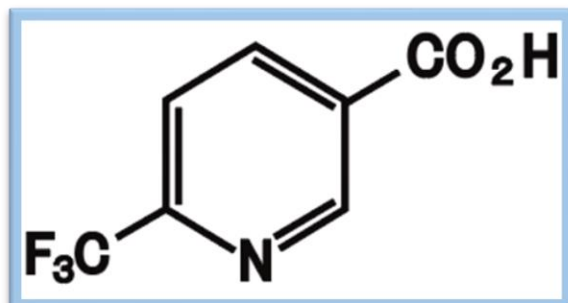
<GABA_A α5 receptor positive allosteric modulators

(PAMs) >



6- (Trifluoromethyl) nicotinic acid

6- (トリフルオロメチル) ニコチン酸



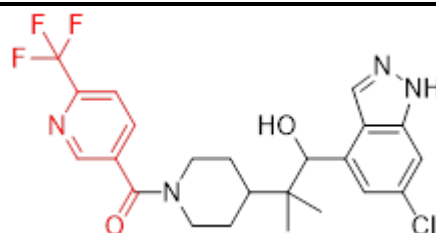
6-TFNA

ISK-a-6

WO 2019183145

(Plexikon Inc., USA)

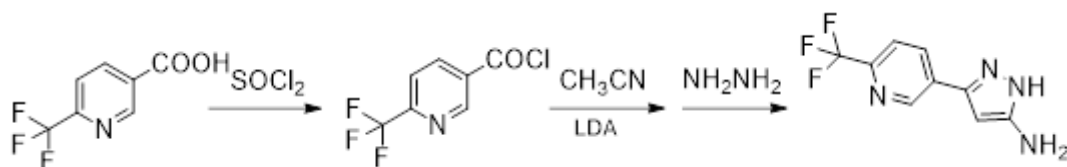
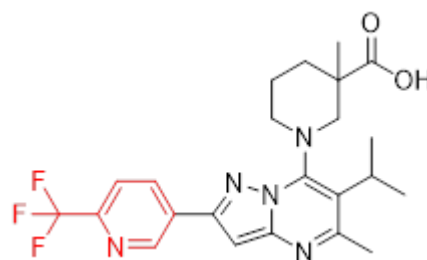
<inhibit indoleamine-2,3-dioxygenase (IDO)
and tryptophan-2,3-oxygenase (TDO) >



WO 2018167629

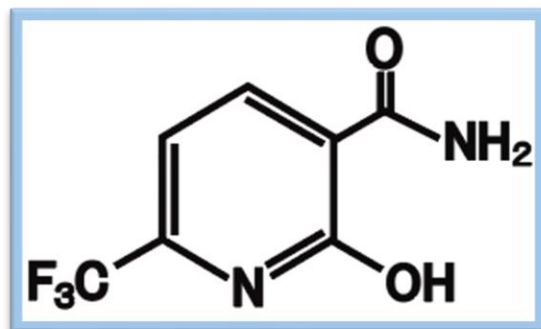
(Richter Gedeon Nyrt., Hung.)

<GABA_B receptor positive allosteric
Modulators >



2-Hydroxy-6- (trifluoromethyl) pyridine-3-carboxamide

2-ヒドロキシ-6- (トリフルオロメチル) ピリジン-3-カルボキサミド



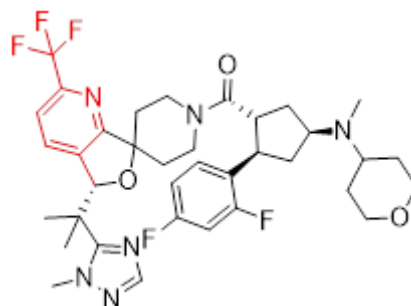
2,6-HTF-3-CAM

ISK-a-7

WO 2007041052

(Merck & Co., Inc., USA)

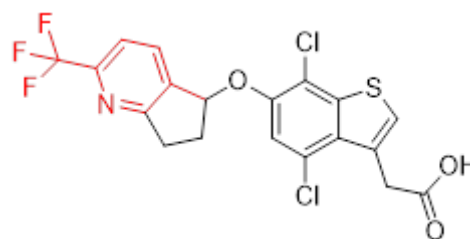
< melanocortin-4 receptor modulators >



WO 2019149959

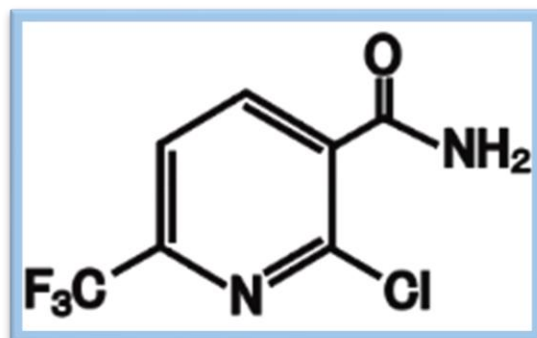
(GlaxoSmithKline Intellectual Property
Development Limited, UK)

< ghrelin O-acyltransferase inhibitors >



2-Chloro-6- (trifluoromethyl) pyridine-3-carboxamide

2-クロロ-6- (トリフルオロメチル) ピリジン-3-カルボキサミド



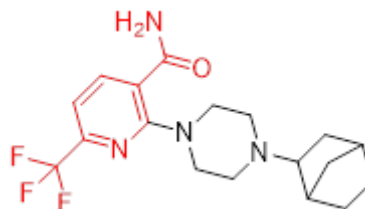
2,6-CTF-3-CAM

ISK-a-8

WO 2005117883

(Vertex Pharmaceuticals Incorporated, USA)

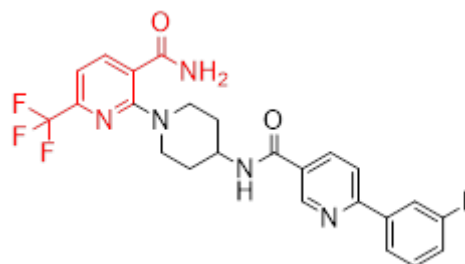
< Modulators of muscarinic receptors >



US 20080146569

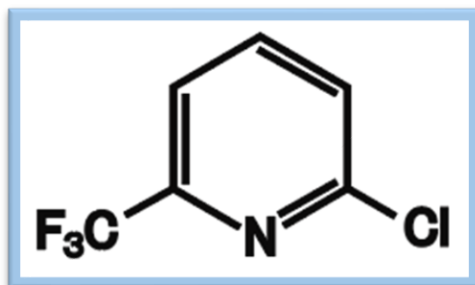
(Pfizer Inc., USA)

< H-PGDS (hematopoietic prostaglandin D-synthase) inhibitors >



2-Chloro-6- (trifluoromethyl) pyridine

2-クロロ-6-(トリフルオロメチル)ピリジン



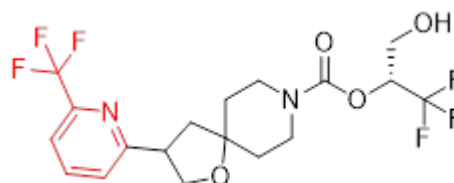
2,6-CTF

ISK-a-9

WO 2018134695

(Pfizer Inc.,USA)

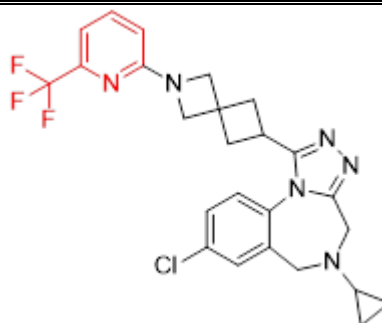
<MAGL inhibitors useful in treatment of MAGL-mediated diseases>



WO 2018226769

(BlackThorn Therapeutics, Inc.,USA)

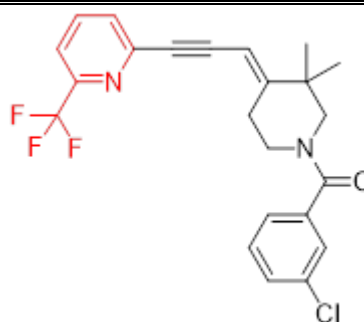
<V1a receptor antagonists for treating neuropsychological disorders>



WO 2019002571

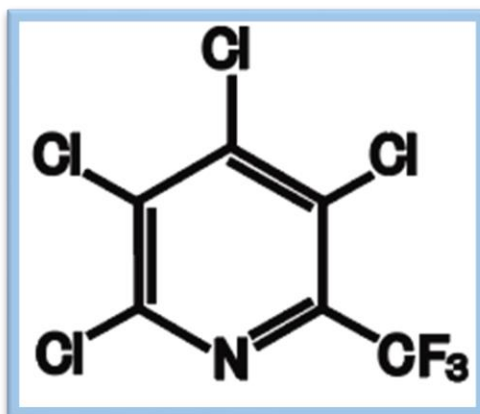
(Recordati Industria Chimica e Farmaceutica SpA, Italy)

<modulators of mGluR5 receptors>



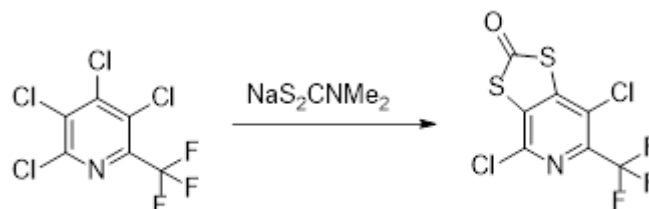
2,3,4,5-Tetrachloro-6- (trifluoromethyl) pyridine

2,3,4,5-テトラクロロ-6- (トリフルオロメチル) ピリジン

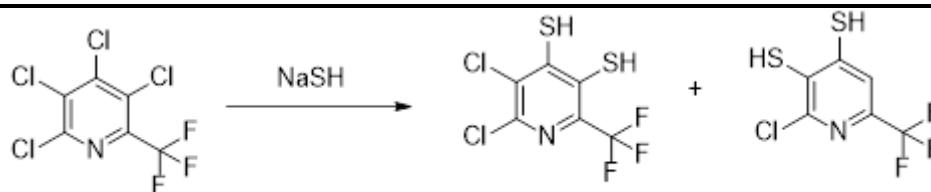


2,3,4,5,6-TCTF

ISK-a-10



Zhurnal Organicheskoi Khimii (1993), 29(9), 1872-7.

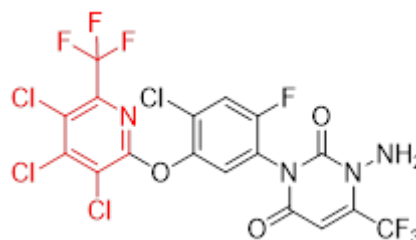


JP 04049282 (Ricoh K. K., Japan)

WO 9841093

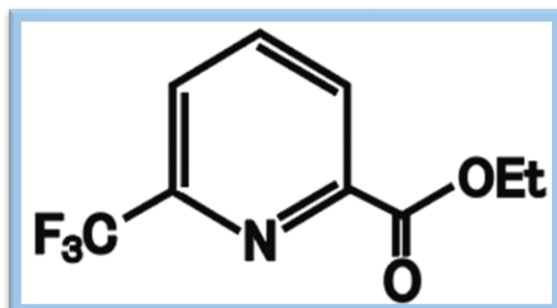
(ISK Americas Incorporated, USA)

<Preparation of diaryl ethers as herbicides
and desiccants>



Ethyl 6- (trifluoromethyl) picolinate

6- (トリフルオロメチル) ピコリン酸エチルエステル



6-TF-2-CO₂Et

ISK-a-11

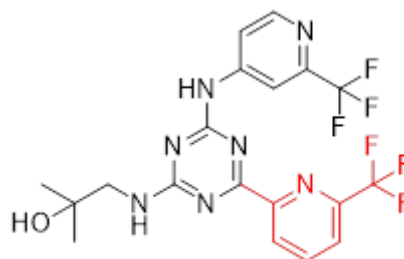
WO 2013102431

(AGIOS PHARMACEUTICALS, INC.)

<Isocitrate dehydrogenase (IDH) -2 inhibitors>

WO 2017024134

<Methods of Preparation>

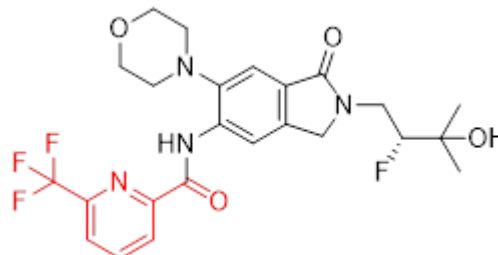


Enasidenib

WO 2018234342

(F. HOFFMANN-LA ROCHE AG)

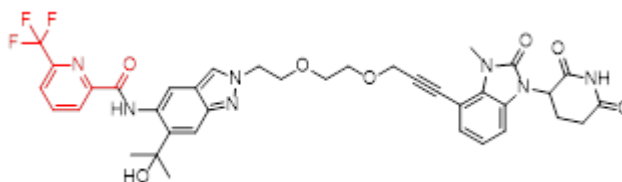
<Interleukin-1 Receptor Associated Kinase
(IRAK4) inhibitors>



US 20190192668

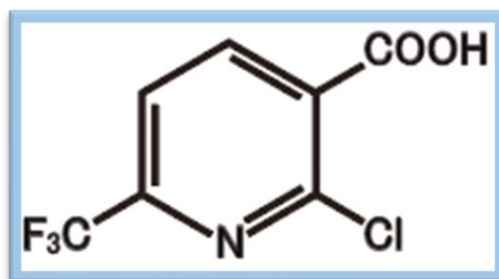
(Kymera Therapeutics, Inc.)

<Preparation of peptide conjugates as
IRAK4 protein kinase degraders>



2-Chloro-6- (trifluoromethyl) nicotinic acid

2-クロロ-6- (トリフルオロメチル) ニコチン酸

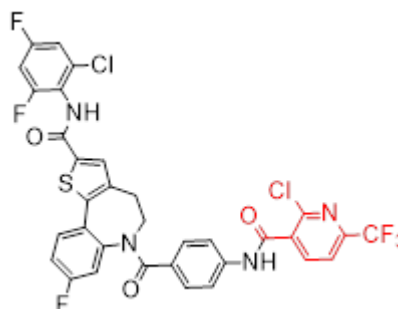


2,6-CTFNA

ISK-a-12

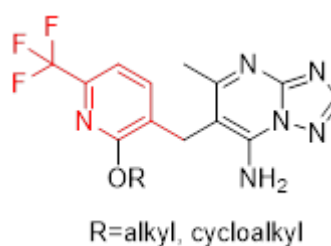
WO 2019006295

(ENANTA PHARMACEUTICALS, INC.)
<Respiratory Syncytial Virus (RSV) Inhibitors>



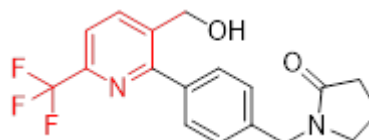
WO 201949660

(BOEHRINGER INGELHEIM INTERNATIONALGMBH)
< GHRELIN O-ACYL TRANSFERASE (GOAT)
INHIBITORS >



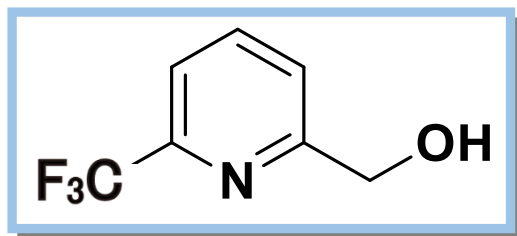
WO 2019166822

(THE UNIVERSITY OF SUSSEX etc.)
< MODULATES AMPA RECEPTOR FUNCTION >



6- (Trifluoromethyl) pyridine-2-methanol

6- (トリフルオロメチル) ピリジン-2-メタノール

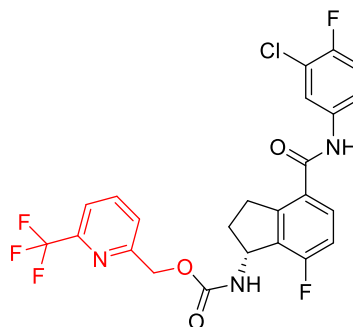


2,6-HmTF

ISK-a-13

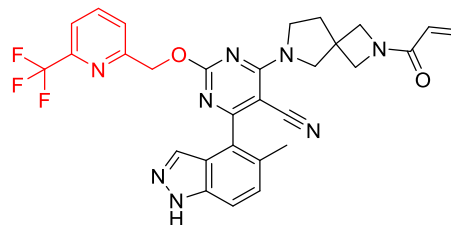
WO 2018172852

(Arbutus Biopharma Corporation, Can.)
< treatment of hepatitis B virus infection >



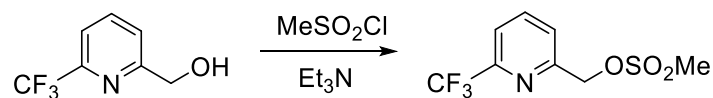
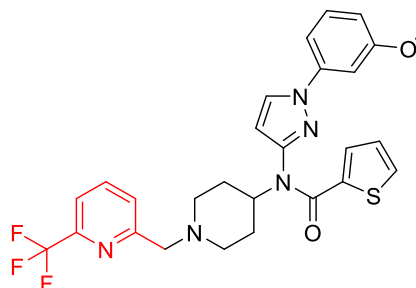
WO 202028706

(Araxes Pharma LLC, USA)
< the treatment of cancer >



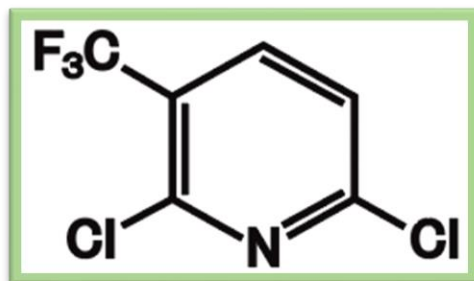
WO 2017178510

(Laboratorios del Dr. Esteve, S.A., Spain)
< multimodal activity against pain >



2,6-Dichloro-3-(trifluoromethyl) pyridine

2,6-ジクロロ-3-(トリフルオロメチル)ピリジン



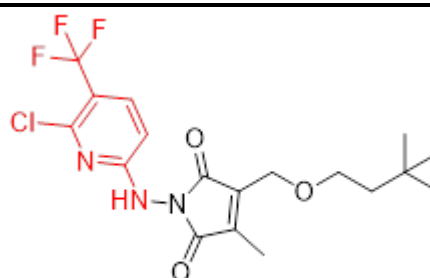
2,6,3-DCTF

ISK-b-1

US 20080275057

(Canbas Co., Ltd., Japan)

< Preparation of pyridinylaminopyrrolinediones
for treatment of cell proliferation disorders >

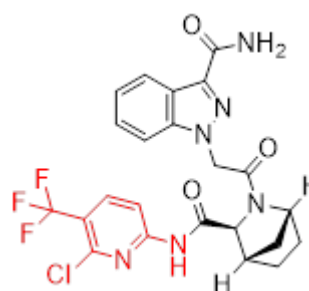


CBS-9106, SL-801

WO 2018229543

(LifeSci Pharmaceuticals, Inc., Barbados)

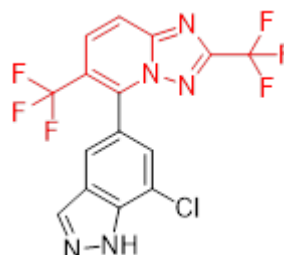
< complement factor D inhibitors >



US 20180111933

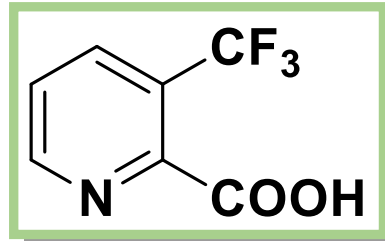
(Janssen Pharmaceutica NV, Belg.)

< AMPA receptor modulators >



3- (Trifluoromethyl) picolinic acid

3- (トリフルオロメチル) ピコリン酸



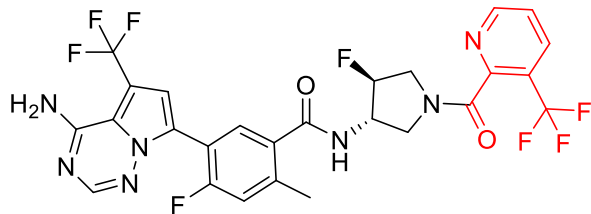
3-TFPA

ISK-b-2

WO2019147782

(Bristol-Myers Squibb Company, USA)

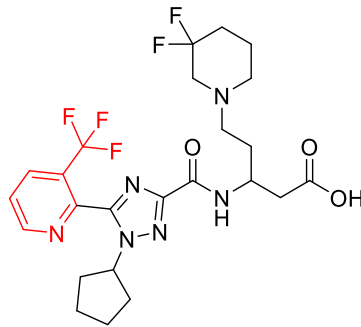
< inhibitors of Cbl-b >



WO 2018071526

(Research Triangle Institute, USA)

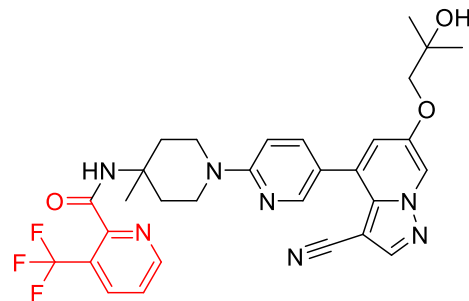
< apelin receptor (APJ) agonists >



WO 2018071454

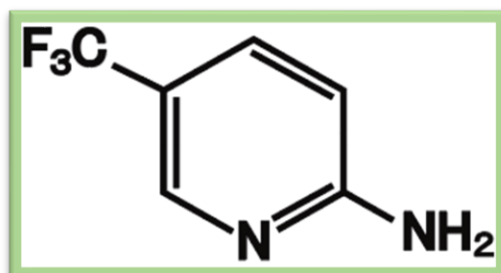
(Array BioPharma Inc. USA)

< RET kinase inhibitors >



2-Amino-5- (trifluoromethyl) pyridine

2-アミノ-5-(トリフルオロメチル)ピリジン



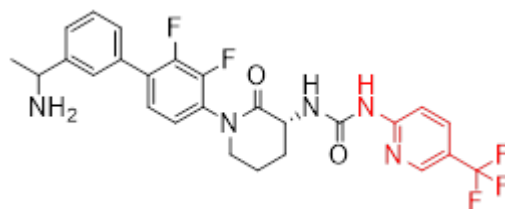
2,5-ATF

ISK-b-3

WO 2018227065

(Bristol-Myers Squibb Company, USA)

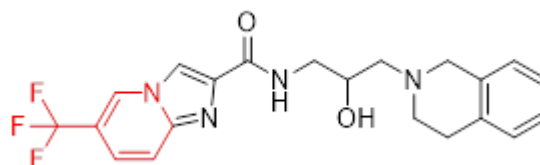
<Piperidinone formyl peptide 2 receptor and
formyl peptide 1 receptor agonists>



WO 2019102494

(Jubilant Biosys Limited, India)

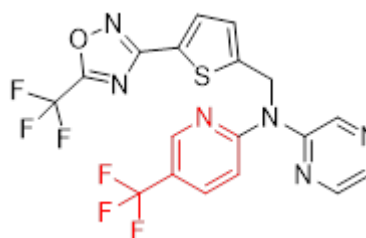
<PRMT5 inhibitors>



WO 2019166824

(Karus Therapeutics Limited, UK)

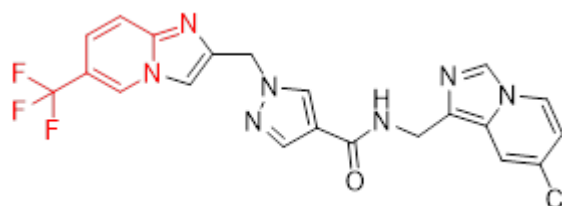
<histone deacetylase inhibitors>



WO 2019178129

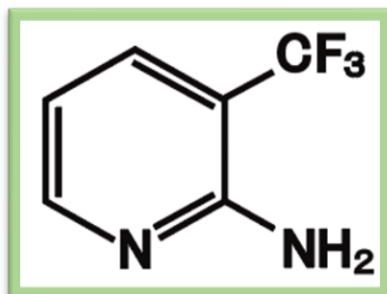
(Shire Human Genetic Therapies, Inc., USA)

<inhibitors of plasma kallikrein>



2-Amino-3- (trifluoromethyl) pyridine

2-アミノ-3-(トリフルオロメチル)ピリジン



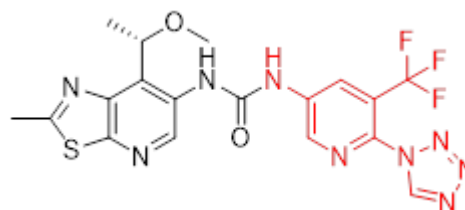
2,3-ATF

ISK-b-4

WO 2018020474

(Lupin Limited, India)

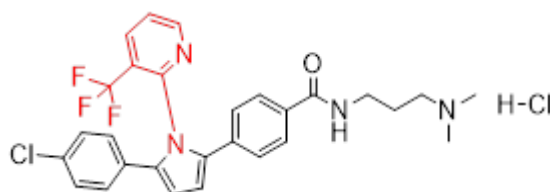
<Mucosa Associated Lymphoid tissue
lymphoma translocation protein-1 (MALT1)
inhibitors>



WO 2018197714

(Sentinel Oncology Limited, UK)

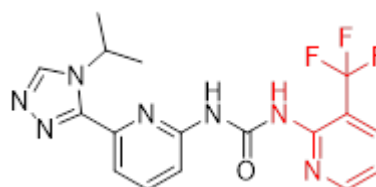
<selective Polo-Like Kinase 1 (PLK1)
inhibitors>



WO 2019099307

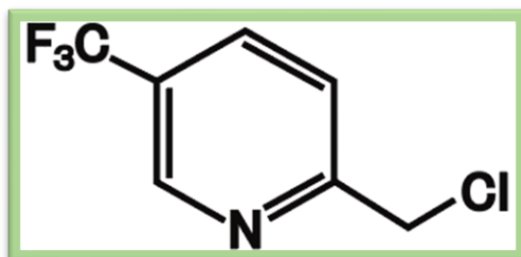
(Hepagene Therapeutics, Inc.)

<Inhibitors OF Apoptosis signal regulating
kinase 1 (ASK1)>



2-Chloromethyl-5- (trifluoromethyl) pyridine

2-クロロメチル-5-(トリフルオロメチル)ピリジン



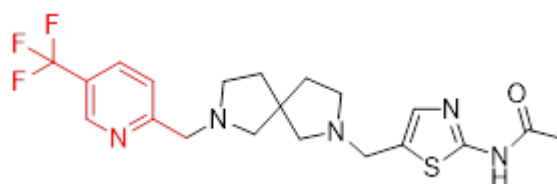
2,5-CmTF

ISK-b-5

WO 2018141984

(Janssen Pharmaceutica NV, Belg.)

<O-GlcNAc hydrolase (OGA) inhibitors>

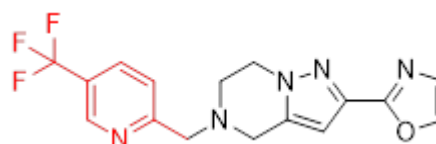


WO 2016171181

(SUIMITOMO

DAINIPPON PHARMA CO., LTD.)

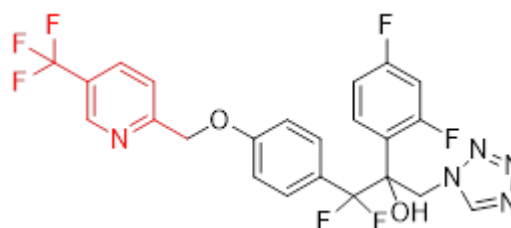
<selective dopamine D4 receptor agonists>



WO 2012177635

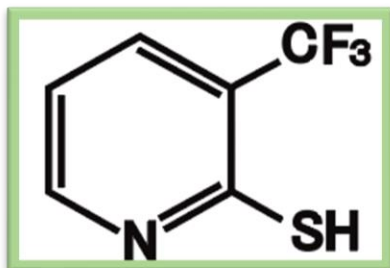
(Viamet Pharmaceuticals, Inc., USA)

<metalloenzyme inhibitor compounds>



2-Mercapto-3- (trifluoromethyl) pyridine

2-メルカプト-3-(トリフルオロメチル)ピリジン



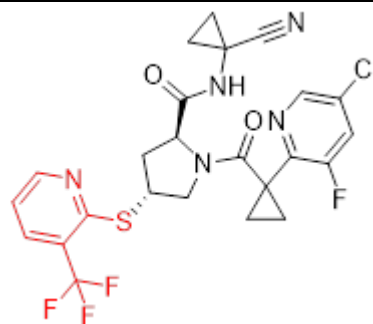
2,3-MTF

ISK-b-6

WO 2014029722

(F. Hoffmann-La Roche AG, Switz.)

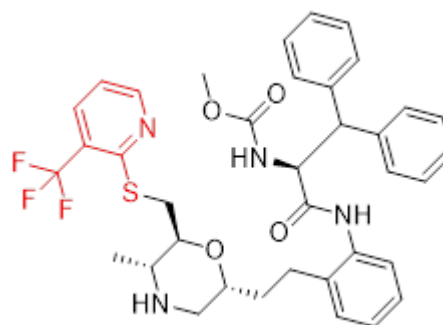
<cathepsin inhibitors>



WO 20151095276

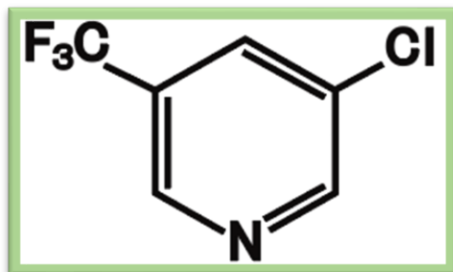
(Merck Sharp & Dohme Corp., USA)

<HIV protease inhibitors>



3-Chloro-5- (trifluoromethyl) pyridine

3-クロロ-5-(トリフルオロメチル)ピリジン

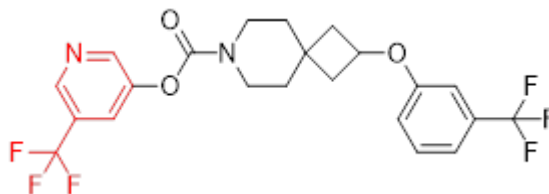


3,5-CTF

ISK-b-7

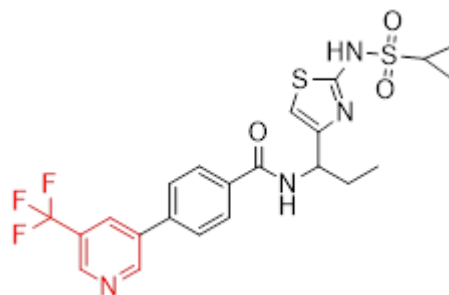
WO 2018169880

(Abide Therapeutics, Inc., USA)
<Dual MAGL and FAAH inhibitors>



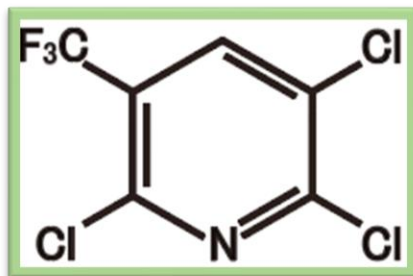
WO 2019106146

(Step Pharma S.A.S., Fr.)
< Cytidine triphosphate synthase 1 (CTRS1)
inhibitors>



2,5,6-Trichloro-3- (trifluoromethyl) pyridine

2,5,6-トリクロロ-3- (トリフルオロメチル) ピリジン



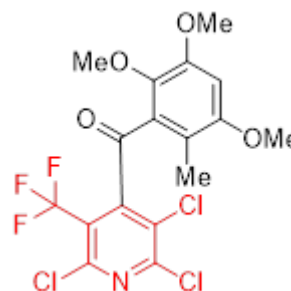
2,5,6,3-TCTF

ISK-b-8

WO 2005041663

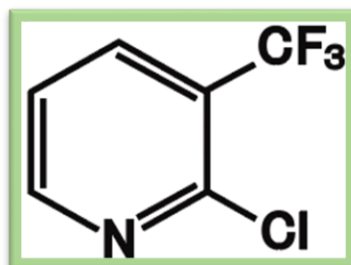
(Ishihara Sangyo Kaisha, Ltd., Japan)

<Preparation of benzoylpyridine derivatives as synergistic fungicides for controlling plant disease>



2-Chloro-3- (trifluoromethyl) pyridine

2-クロロ-3-(トリフルオロメチル)ピリジン



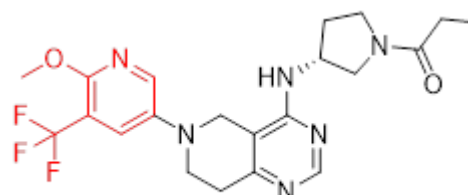
2,3-CTF

ISK-b-9

WO 2012004299

(Novartis AG, Switz.)

<Phosphatidylinositol 3-kinase (PI3K) enzyme activity modulators>



Leniolisib

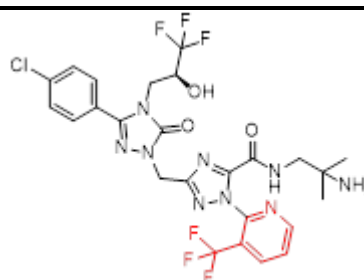
WO 2013/001445

<Methods of Preparation>

WO 2019081303

(Bayer Aktiengesellschaft, Germany)

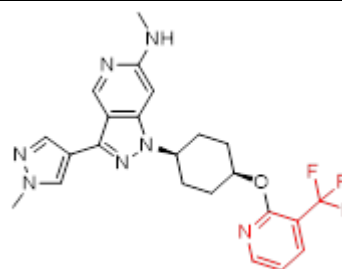
<treating renal and cardiovascular diseases>



WO 2019113190

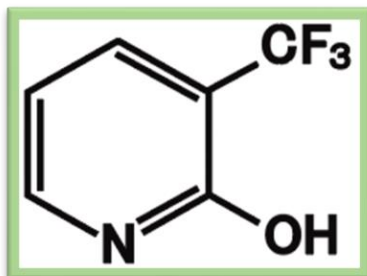
(Array Biopharma Inc., USA)

< inhibitors of TAM kinases >



2-Hydroxy-3- (trifluoromethyl) pyridine

2-ヒドロキシ-3-(トリフルオロメチル)ピリジン



2,3-HTF

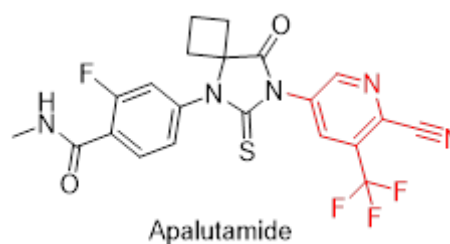
ISK-b-10

WO 2007126765

(The University of California, USA)
<androgen receptor modulators>

WO 2011103202

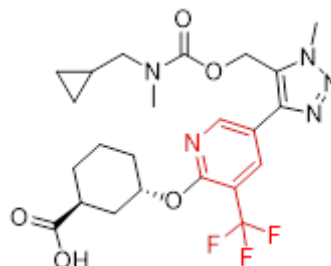
(Aragon Pharmaceuticals, Inc., USA)
<Methods of Preparation>



Apalutamide

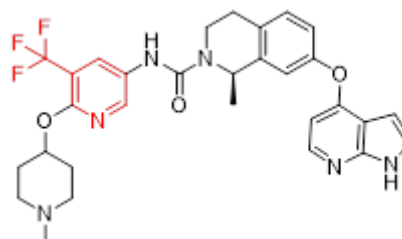
WO 2017223016

(Bristol-Myers Squibb Company, USA:
Syngene International Limited)
< LPA antagonists >



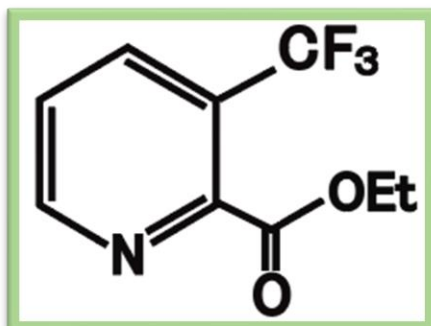
WO 2019200120

(Lycera Corporation, USA)
<Inhibiting Hematopoietic Progenitor Kinase 1
(HPK1) activity >



Ethyl 3- (trifluoromethyl) picolinate

3- (トリフルオロメチル) ピコリン酸エチルエステル



3-TF-2-CO₂Et

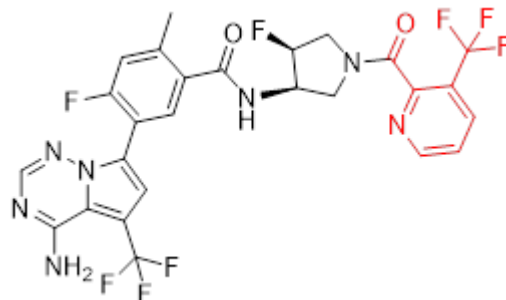
ISK-b-11

WO 2019147782

(Bristol-Myers Squibb Company, USA)

<receptor interacting protein kinase 1

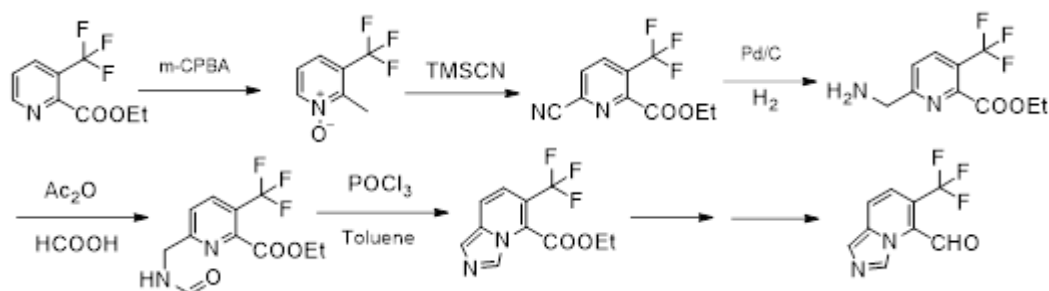
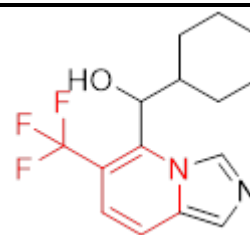
(RIPK1) inhibitors>



WO 2016161960

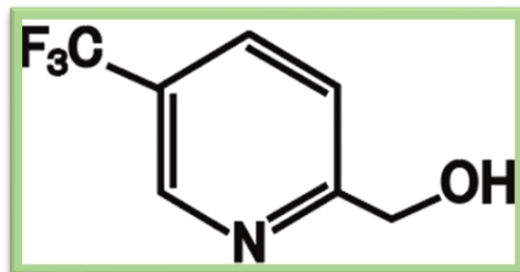
(BeiGene, Ltd.)

<indoleamine and tryptophane 2,3-dioxygenases
inhibitors for treatment and prophylaxis of diseases>



5- (Trifluoromethyl) pyridine-2-methanol

5- (トリフルオロメチル) ピリジン-2-メタノール

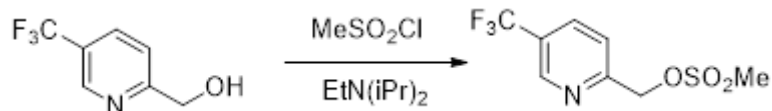
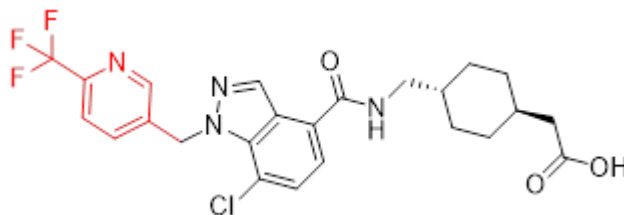


2,5-HmTF

ISK-b-12

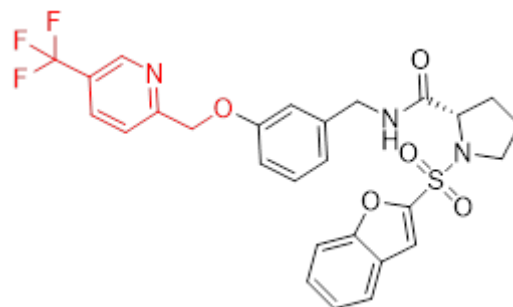
WO 2018181456

(Kaken Pharmaceutical Co., Ltd
Meiji Seika Pharma Co., Ltd., Japan)
<ROR γ t inhibitors>



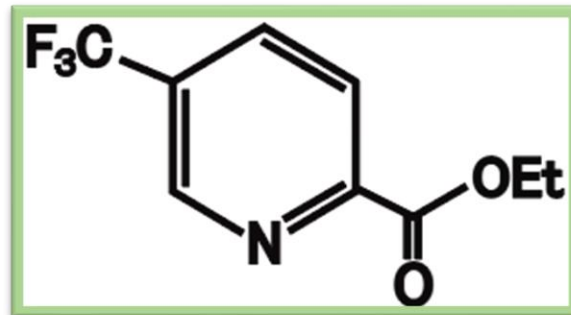
WO 2015115507

(Ajinomoto CO., INC.)
<TRPA1 antagonists for treating pain, digestive
diseases, and inflammatory diseases>



Ethyl 5- (trifluoromethyl) picolinate

5- (トリフルオロメチル) ピコリン酸エチルエステル



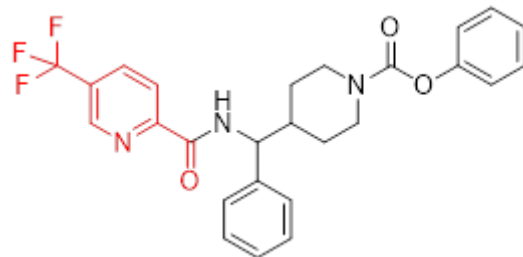
5-TF-2-CO₂Et

ISK-b-13

WO 2019003141

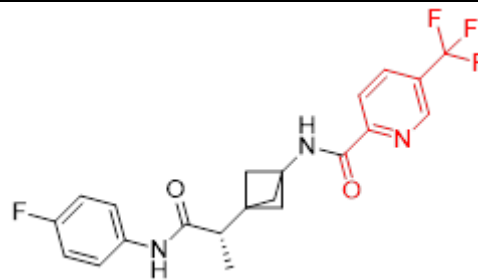
(GlaxoSmithKline Intellectual Property
Development Limited, UK)

<modulators of indoleamine 2,3-
dioxygenase>



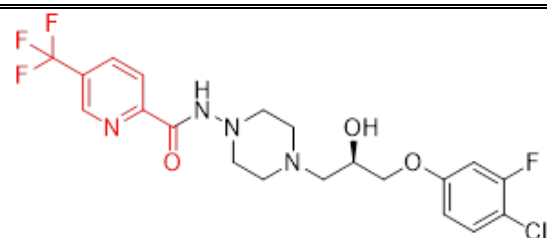
WO 2019204180

(Merck Sharp & Dohme Corp., USA)
<indoleamine 2,3-dioxygenase inhibitors>



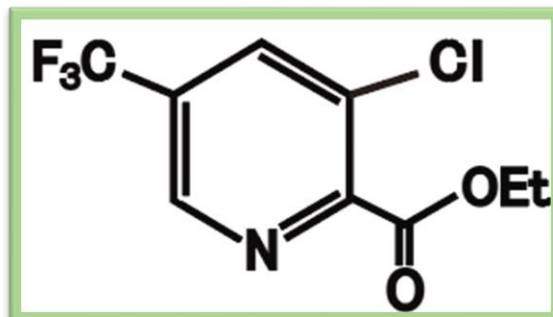
WO 2019236710

(Praxis Biotech LLC, USA)
<inhibitors of integrated stress response pathway>



Ethyl 3-chloro-5-(trifluoromethyl) picolinate

3-クロロ-5-(トリフルオロメチル)ピコリン酸エチルエステル



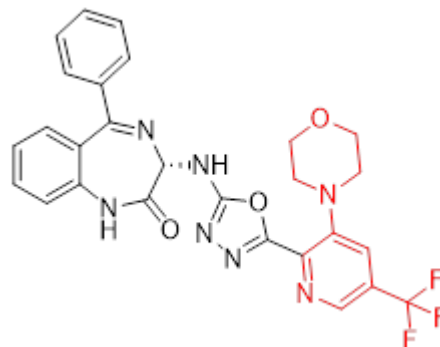
3,5-CTF-2-CO₂Et

ISK-b-14

WO 2018129287

(Enanta Pharmaceuticals, Inc., USA)

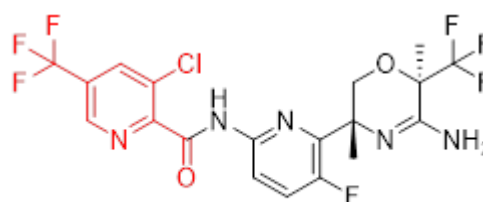
<RSV inhibitors>



WO 2019142111

(Novartis AG, Switz.)

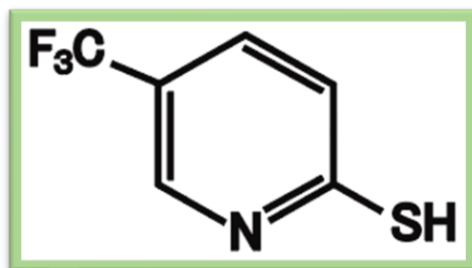
<Preparation of salt forms of an oxazine
derivative BACE inhibitor>



Umibecestat

2-Mercapto-5- (trifluoromethyl) pyridine

2-メルカプト-5-(トリフルオロメチル)ピリジン



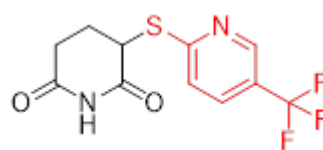
2,5-MTF

ISK-b-15

WO 2019/140387

(Kymera Therapeutics, Inc., USA)

<inhibition of cereblon (CRBN)>



WO 2018089786

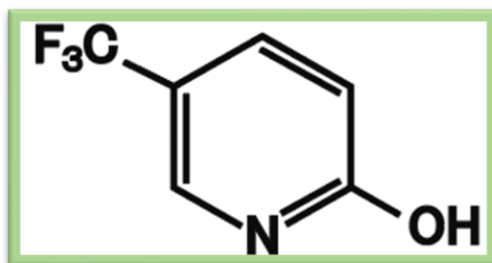
(Millennium Pharmaceuticals, Inc., USA)

<antitumor agents and Atg7 enzyme inhibitors>



2-Hydroxy-5- (trifluoromethyl) pyridine

2-ヒドロキシ-5-(トリフルオロメチル)ピリジン



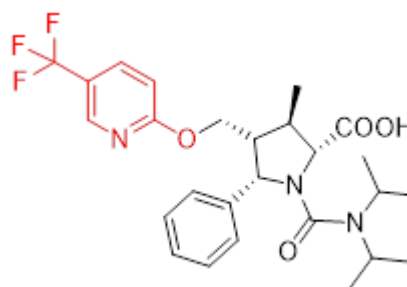
2,5-HTF

ISK-b-16

WO 2019193062

(AbbVie S.a.r.l, Luxembourg)

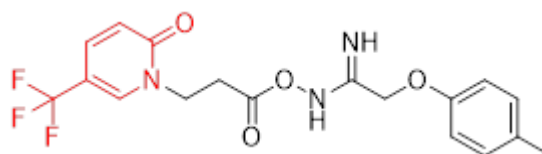
< Cystic Fibrosis Transmembrane Conductance
Regulator (CFTR) modulators >



US 20190315681

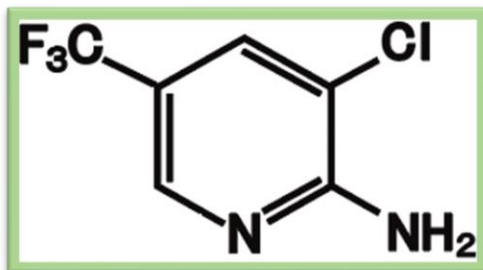
(THE TRUSTEES OF COLUMBIA
UNIVERSITY IN THE CITY OF
NEW YORK)

< Preparation of small molecule
ferroptosis inducers as GPX4 inhibitors >



2-Amino-3-chloro-5- (trifluoromethyl) pyridine

2-アミノ-3-クロロ-5-(トリフルオロメチル)ピリジン



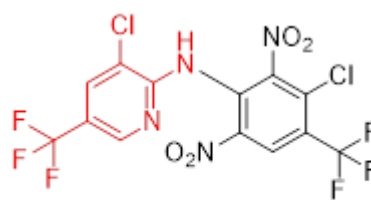
2,3,5-actf

ISK-b-17

EP 31257

(Ishihara Sangyo Kaisha, Ltd., Japan)

<Fungicide>

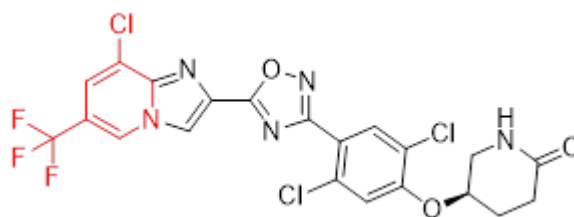


Fluazinam

WO 2018211324

(Oppilan Pharma Ltd, UK)

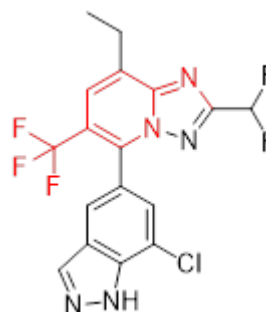
<sphingosine-1-phosphate (S1P) receptor modulators>



US 20180111933

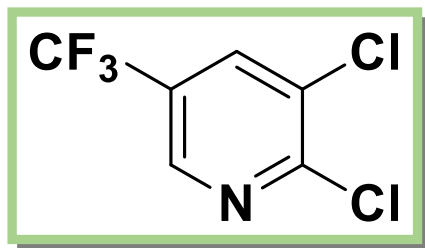
(Janssen Pharmaceutica NV, Belg.)

<AMPA receptor modulators>



2,3-Dichloro-5-(trifluoromethyl) pyridine

2,3-ジクロロ-5-(トリフルオロメチル)ピリジン



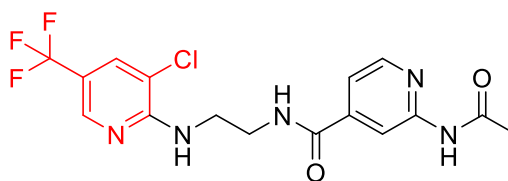
2,3,5-DCTF

ISK-b-18

WO2018235851

(Raqualia Pharma Inc., Japan)

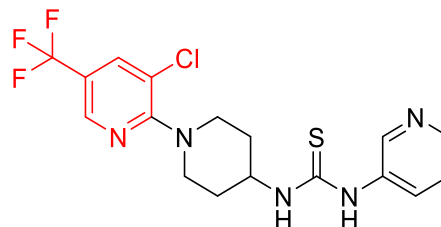
< Nav1.7 and Nav1.8 blockers >



WO 2019222267

(The Scripps Research Institute, USA)

< Abhd12 inhibitors useful in treatment of diseases >

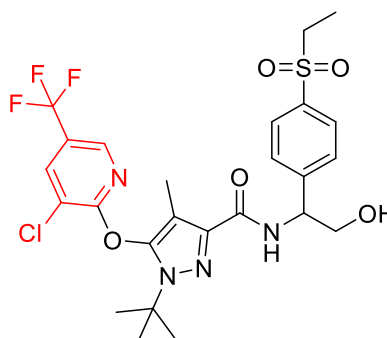


JP202059651

(Kaken Pharmaceutical Co., Ltd., Japan;

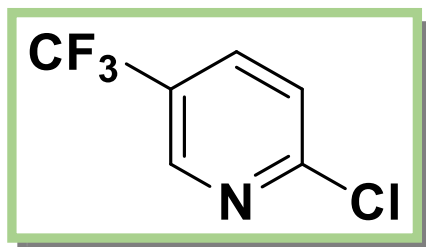
Meiji Seika Pharma Co., Ltd.)

<pyrazole derivative as ROR γ t inhibitor >



2-Chloro-5- (trifluoromethyl) pyridine

2-クロロ-5-(トリフルオロメチル)ピリジン



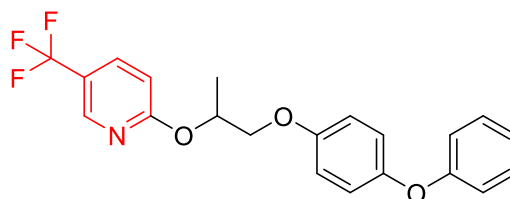
2,5-CTF

ISK-b-19

WO 2018237084

(SHY Therapeutics LLC, USA)

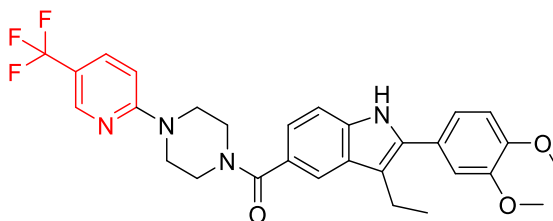
<the Ras superfamily for the treatment of cancers, inflammatory diseases, rasopathies, and fibrotic disease>



WO 2019126081

(Bristol-Myers Squibb Company, USA)

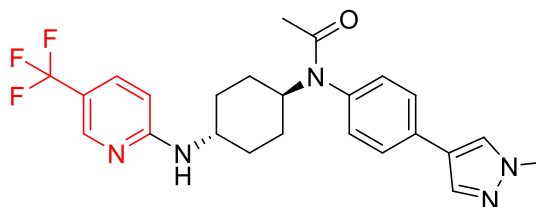
<TLR inhibitors>



WO 2019189555

(Takeda Pharmaceutical Company Limited, Japan)

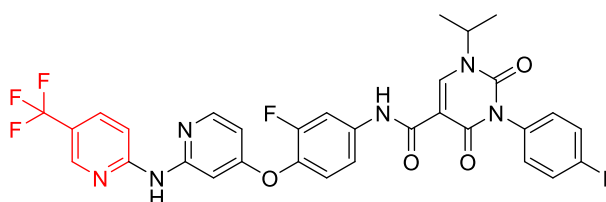
< CDK12-inhibiting effect >



WO 2019213340

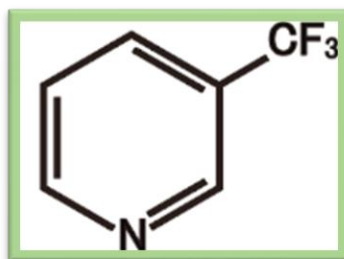
(Bristol-Myers Squibb Company, USA)

< Mer-Axl inhibitors >



3- (Trifluoromethyl) pyridine

3- (トリフルオロメチル) ピリジン

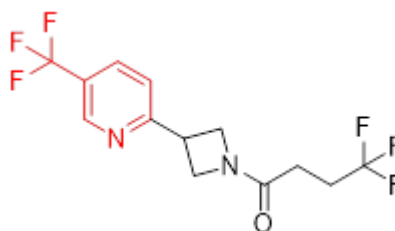


3-TF

ISK-b-20

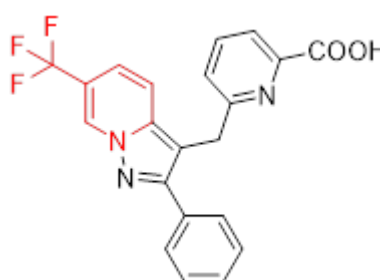
WO 2019/034702

(GlaxoSmithKline Intellectual Property
Development Limited, UK; Bioversys AG)
<the treatment of mycobacterial infections>



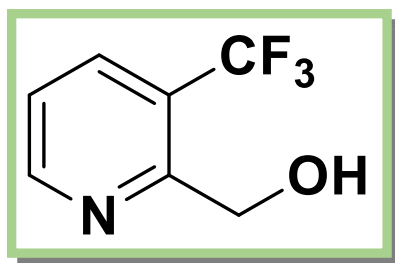
W O 2012/102297

(Kyorin Pharmaceuticals Co., Ltd.,
Kissei Pharmaceutical Co., Ltd.)
< E P 1 Receptor antagonism >



3- (Trifluoromethyl) pyridine-2-methanol

3- (トリフルオロメチル) ピリジン-2-メタノール



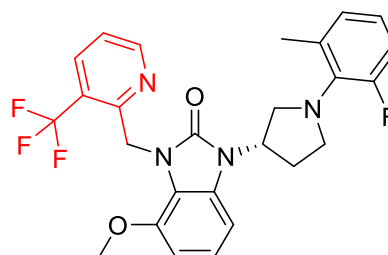
2,3-HmTF

ISK-b-21

WO 2019141803

(Idorsia Pharmaceuticals Ltd., Switz.)

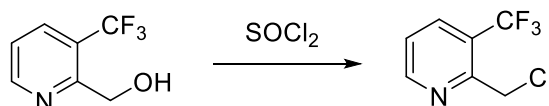
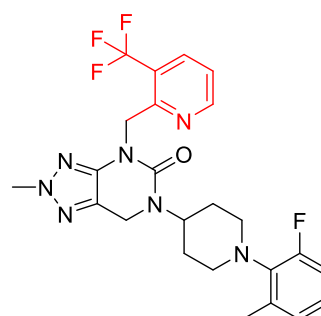
<C5a receptor modulators>



WO 2019137927

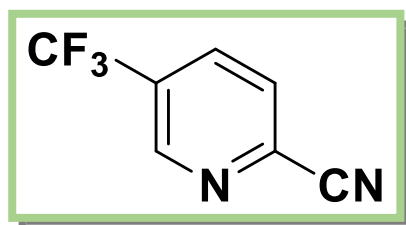
(Idorsia Pharmaceuticals Ltd, Switz.)

<C5a receptor modulators>



2-Cyano-5- (trifluoromethyl) pyridine

2-シアノ-5-(トリフルオロメチル)ピリジン



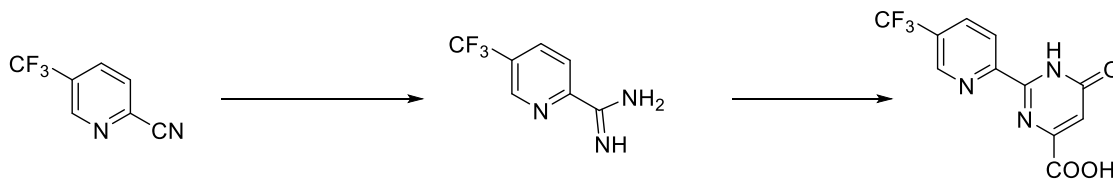
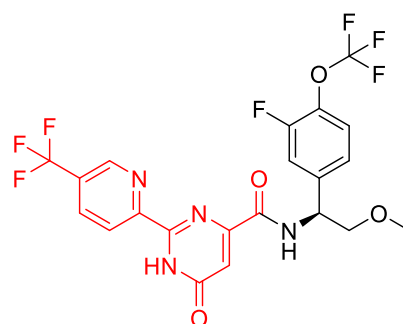
5-TF-2-CN

ISK-b-22

WO 2015060368

(TAKEDA PHARMACEUTICAL COMPANY LIMITED)

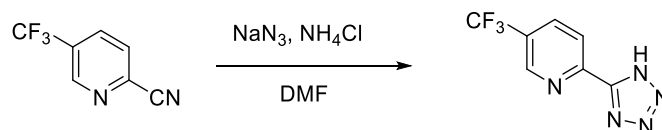
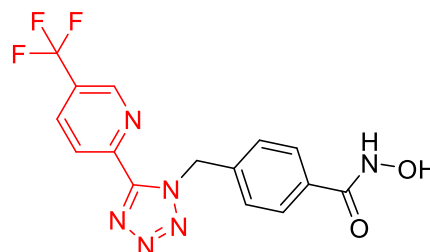
<SELECTIVE PDE2A INHIBITORS>



WO 2018189340

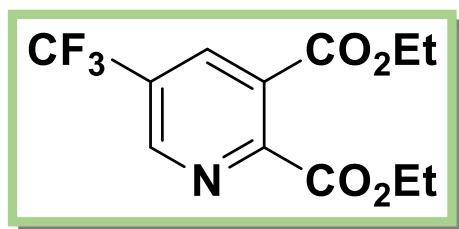
(ITALFARMACO S.P.A.)

<SELECTIVE HDAC6 INHIBITORS>



Diethyl 5- (trifluoromethyl) pyridine-2,3-dicarboxylate

ジエチル 5- (トリフルオロメチル) ピリジン-2,3-ジカルボキシレート



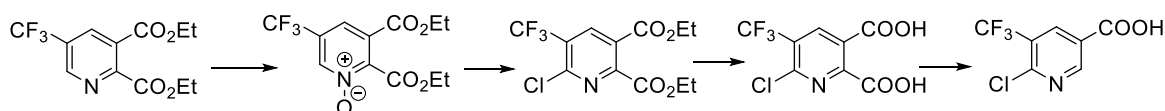
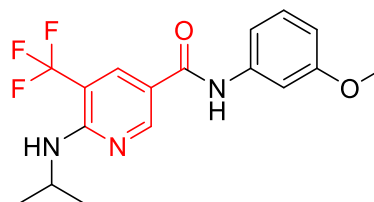
5-TF-2,3-Bis-CO₂Et

ISK-b-23

WO 2009016088

(F. Hoffmann-La Roche A.-G., Switz.)

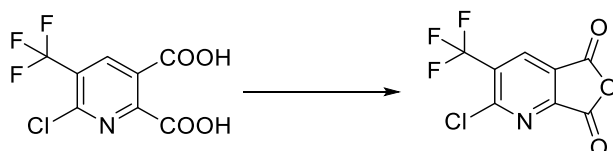
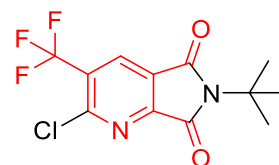
<substituted benzamide derivatives for use as CNS agents>



US 5679622

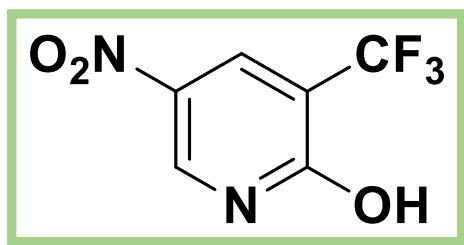
(BASF)

<herbicides>



2-Hydroxy-5-nitro-3- (trifluoromethyl) pyridine

2-ヒドロキシ-5-ニトロ-3-(トリフルオロメチル)ピリジン



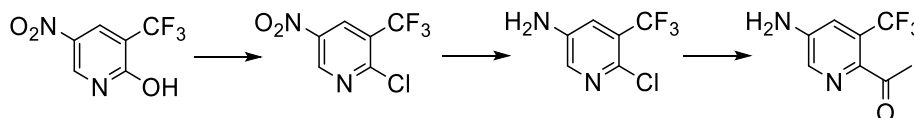
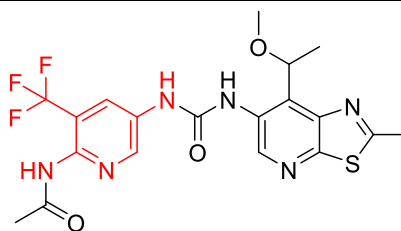
2,5,3-HNTF

ISK-b-24

WO 2016037578

(GlaxoSmithKline Intellectual Property
Development Limited, UK)

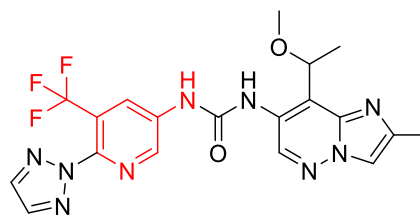
<RET kinase inhibitors>



WO 2020111087

(Takeda Pharmaceutical Company
Limited, Japan)

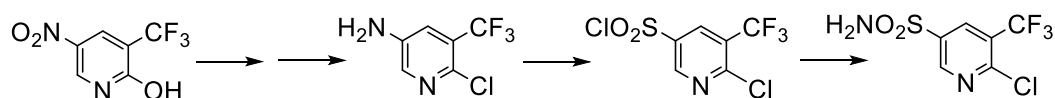
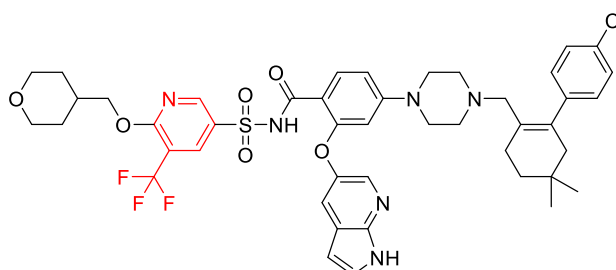
<MALT1 inhibitory effect, antitumor agent>



US20110124628

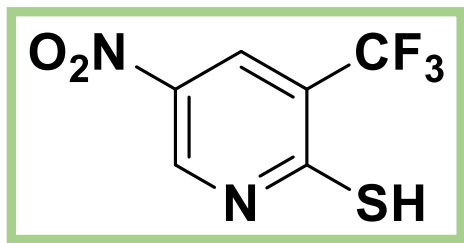
(Abbott Laboratories, USA)

<treatment of cancer >



2-Mercapto-5-nitro-3- (trifluoromethyl) pyridine

2-メルカプト-5-ニトロ-3- (トリフルオロメチル) ピリジン



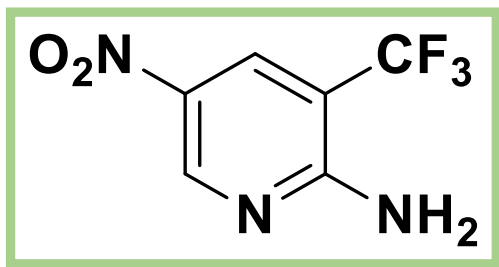
2,5,3-MNTF

ISK-b-25

NO PATENT

2-Amino-5-nitro-3-(trifluoromethyl) pyridine

2-アミノ-5-ニトロ-3-(トリフルオロメチル)ピリジン

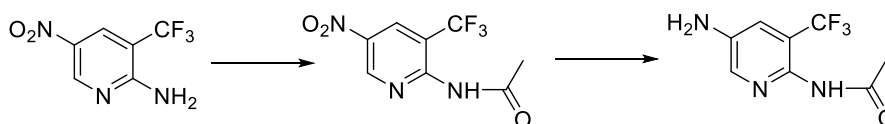
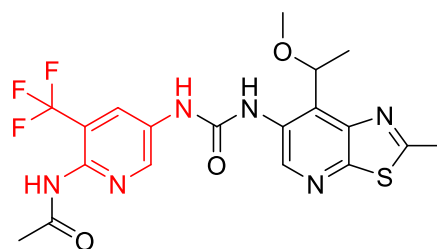


2,5,3-ANTF

ISK-b-26

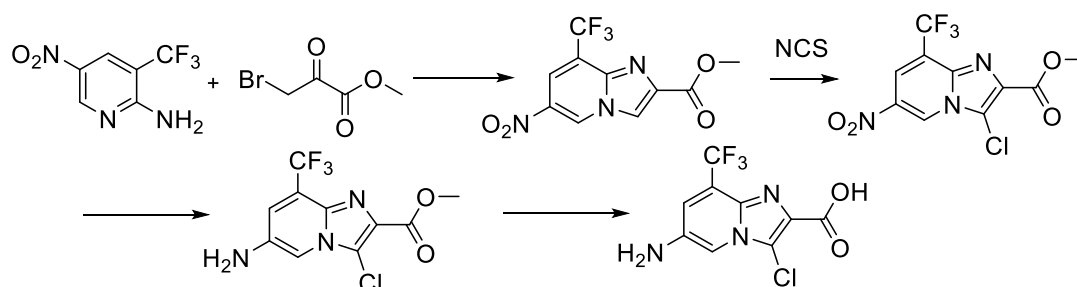
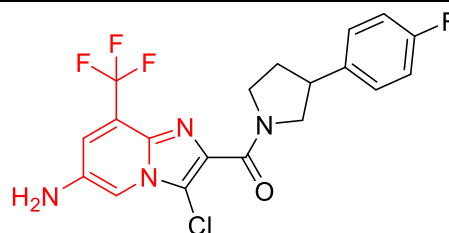
WO 2018020474

(Lupin Limited, India)
<MALT1 inhibitors>



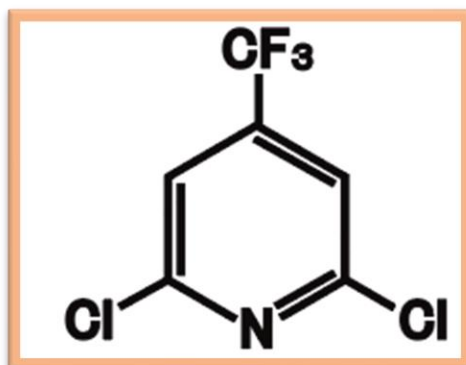
WO 2009023179

(Genelabs Technologies, Inc., USA)
<antiviral agents>



2,6-Dichloro-4- (trifluoromethyl) pyridine

2,6-ジクロロ-4-(トリフルオロメチル)ピリジン



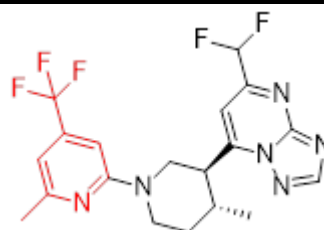
2,6,4-DCTF

ISK-c-1

WO 2018083103

(Janssen Pharmaceutica NV, Belg.)

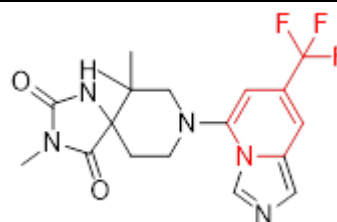
< PDE2 inhibitors >



WO 2018136887

(TESARO, Inc., USA)

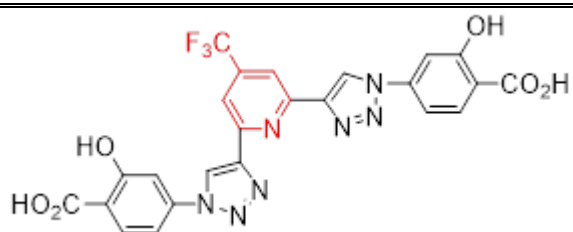
< inhibitors of indoleamine 2,3-dioxygenase
and/or tryptophan dioxygenase >



WO 2019135975

(Stratos Genomics Inc., USA)

<nucleic acid polymerization enhancers>



2-Chloro-4- (trifluoromethyl) pyridine

2-クロロ-4-(トリフルオロメチル)ピリジン



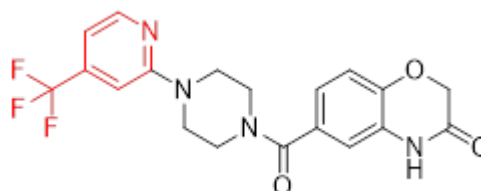
2,4-CTF

ISK-c-2

WO 2019105915

(F. Hoffmann-La Roche AG, Switz.)

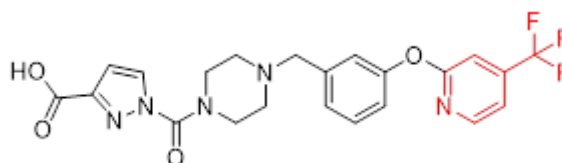
< inhibiting monoacylglycerol lipase >



WO 2018217805

(Abide Therapeutics, Inc., USA)

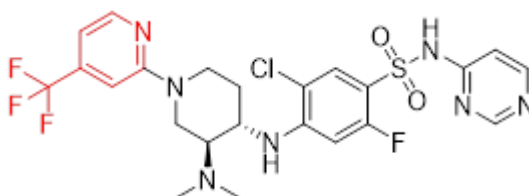
< MAGL inhibitors useful in treatment of pain >



WO 2019165290

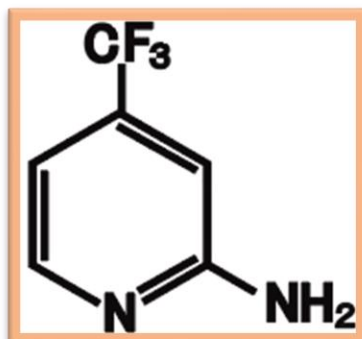
(Genentech, Inc., USA)

< novel compounds having sodium channelblocking activity that are useful for the treatment of pain >



2-Amino-4- (trifluoromethyl) pyridine

2-アミノ-4-(トリフルオロメチル)ピリジン



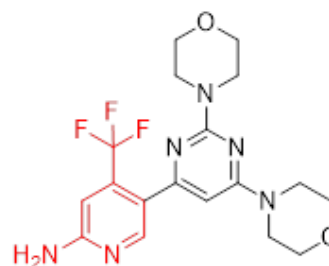
2,4-ATF

ISK-c-3

WO 2014064058

(Novartis AG, Switz.)

< Improved process for manufacturing
phosphatidylinositol 3-kinase (PIK3) inhibitor >

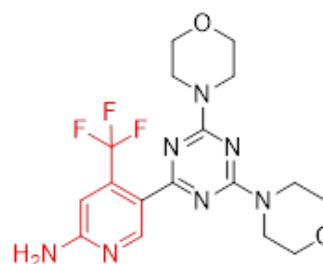


BKM-120, AN2025

WO 2010052569

(University of Basel, Switz.)

< phosphoinositide 3-kinase (PI3K) and mammalian
target of rapamycin (mTOR) inhibitor compds >

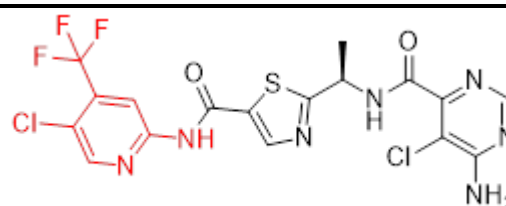


PQR309

WO 2009006389

(Sunesis Pharmaceuticals, Inc., USA)

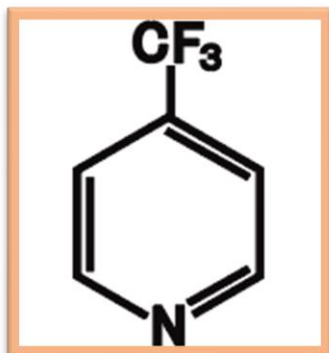
< Raf kinase inhibitors >



MLN-2480, TAK-580

4- (Trifluoromethyl) pyridine

4- (トリフルオロメチル) ピリジン

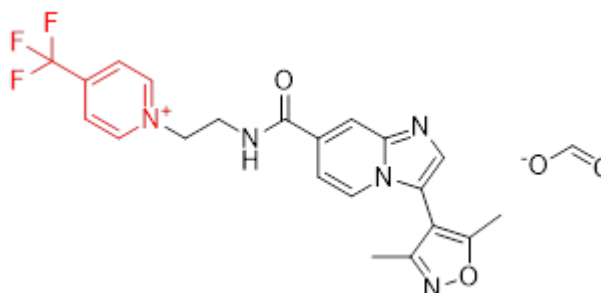


4-TF

ISK-c-4

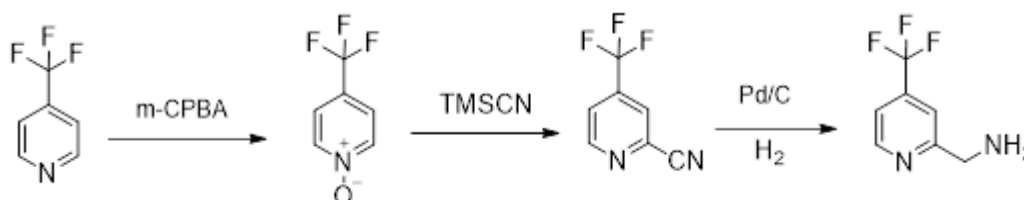
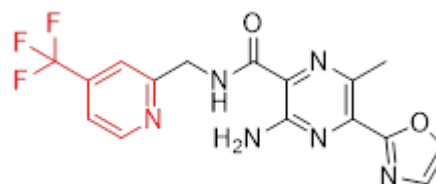
WO 2019081353

(Bayer Aktiengesellschaft, Germany)
< α 2B-adrenoreceptor antagonists >



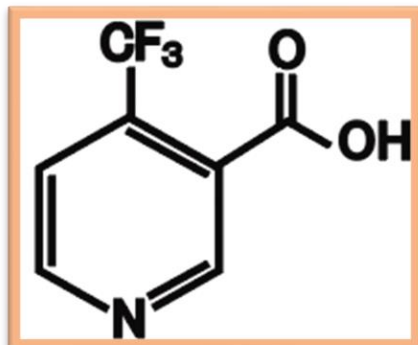
WO 2016/081290

MERCK SHARP & DOHME CORP.
< AMINOPYRAZTNE COMPOUNDS WITH adenosine-2
receptor ANTAGONIST PROPERTIES >



4- (Trifluoromethyl) nicotinic acid

4- (トリフルオロメチル) ニコチン酸



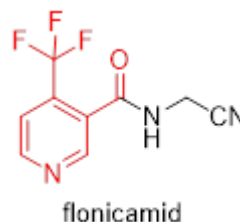
4-TFNA

ISK-c-5

EP 580374

(Ishihara Sangyo Kaisha, Ltd., Japan)

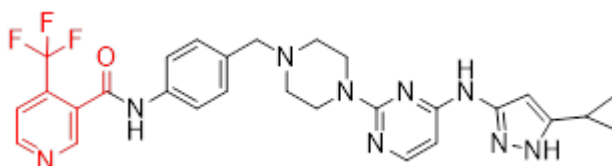
<Preparation of nicotinamides as pesticides>



EP 30700084

(Rottapharm Biotech S.r.l.)

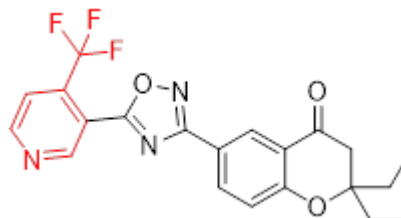
<new selective FYN kinase inhibitors>



WO 2018/231745

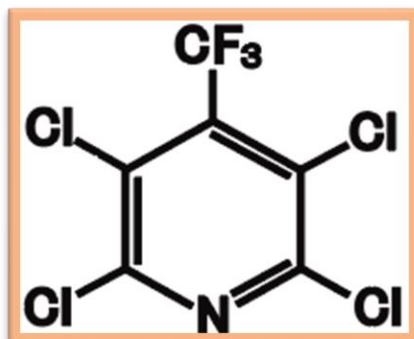
(TREVENA, INC. USA)

<MODULATING S1P1 ACTIVITY>



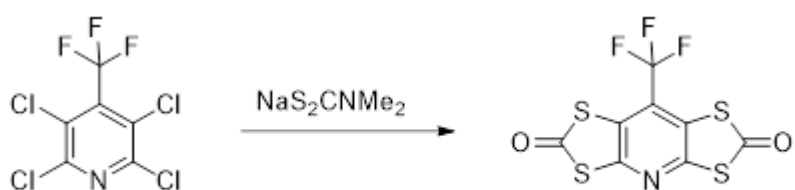
2,3,5,6-Tetrachloro-4- (trifluoromethyl) pyridine

2,3,5,6-テトラクロロ-4- (トリフルオロメチル) ピリジン



2,3,5,6,4-TCTF

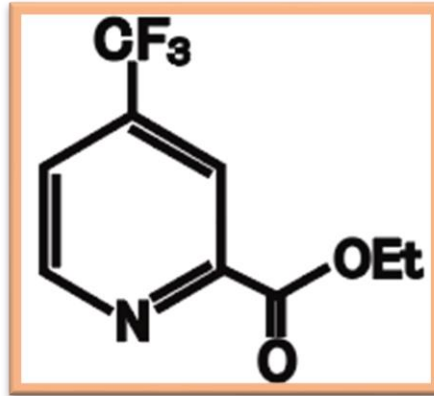
ISK-c-6



Khimiya Geterotsiklicheskikh Soedinenii (1994), (9), 1278-84.

Ethyl 4- (trifluoromethyl) picolinate

4- (トリフルオロメチル) ピコリン酸エチルエステル



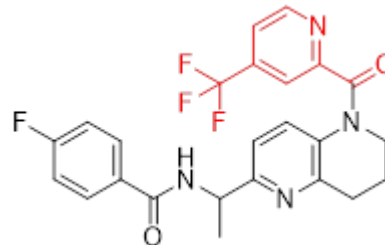
4-TF-2-CO₂Et

ISK-c-7

WO 2019089412

(Merck Sharp & Dohme Corp., USA)

< indoleamine 2,3-dioxygenase inhibitors >

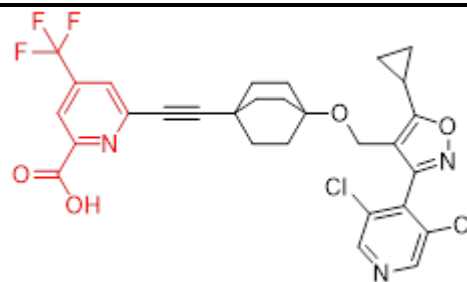


US 20190127358

(Syngene International Limited, India;

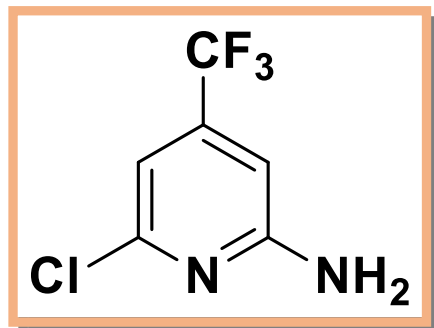
Bristol-Myers Squibb Company)

< farnesoid X receptor modulators >



2-Amino-6-chloro-4- (trifluoromethyl) pyridine

2-アミノ-6-クロロ-4- (トリフルオロメチル) ピリジン



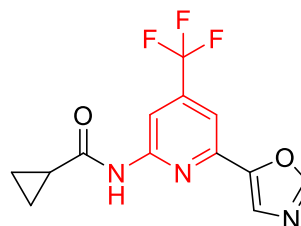
2,6,4-ACTF

ISK-c-8

WO 2014163162

(Takeda Pharmaceutical Company
Limited, Japan)

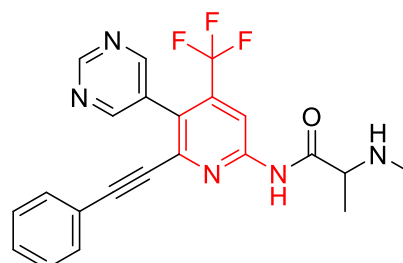
< inhibitors of cholesterol 24-hydroxylase >



US20130225567

(Boehringer Ingelheim International
GmbH, Germany)

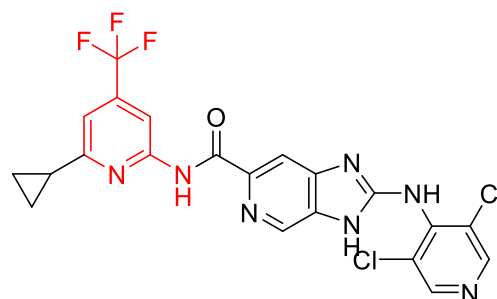
< 5-alkynylpyridines as SMAC mimetics >



WO2010034798

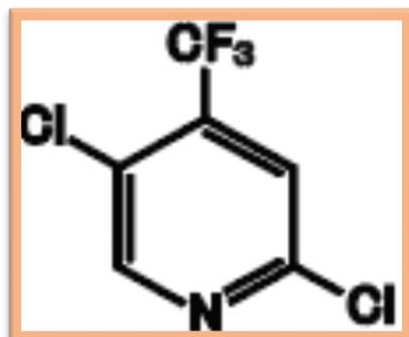
(Boehringer Ingelheim International
GmbH, Germany)

< anti-inflammatory agents >



2,5-Dichloro-4-(trifluoromethyl) pyridine

2,5-ジクロロ-4-(トリフルオロメチル)ピリジン



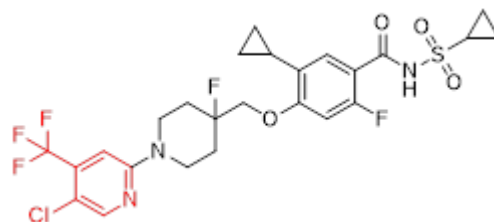
2,5,4-DCTF

ISK-c-9

US 20160340309

(Genentech, Inc., USA; Xenon Pharmaceuticals Inc.)

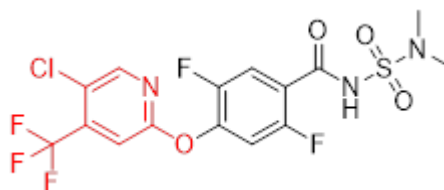
<sodium channel inhibitors>



WO 2013102826

(Pfizer Limited, UK)

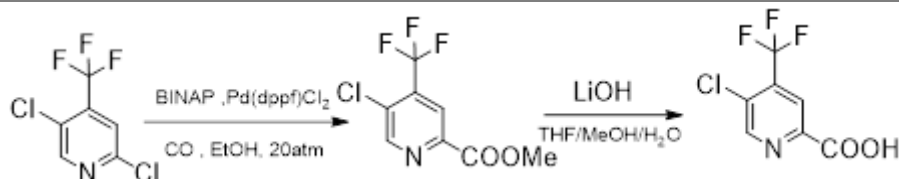
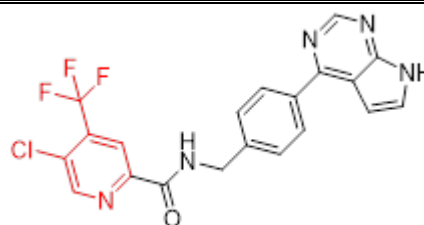
<Nav 1.7 inhibitors>



WO 2015/089327

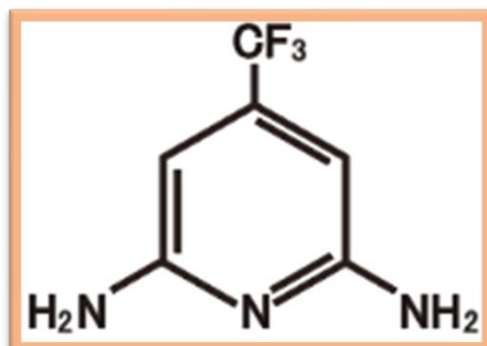
(BIOGEN IDEC MA INC.,
SUNESIS PHARMACEUTICALS, INC.)

<inhibitors of Bruton's tyrosine kinase>



2,6-Diamino-4- (trifluoromethyl) pyridine

2,6-ジアミノ-4-(トリフルオロメチル)ピリジン



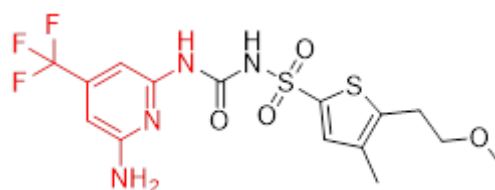
2,6,4-DATF

ISK-c-10

WO 2009/068468

(F. Hoffmann-La Roche AG, Switz.)

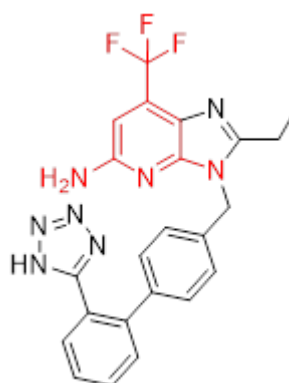
<fructose-1,6-bisphosphatase inhibitors for
use in treating diseases such as diabetes>



US 5332744 (1994)

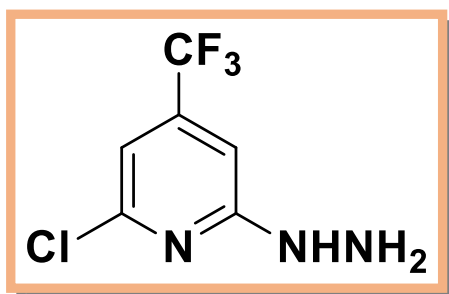
(Merck and Co., Inc., USA)

<angiotensin II antagonists.>



2-Chloro-6-hydrazino-4- (trifluoromethyl) pyridine

2-クロロ-6-ヒドラジノ-4- (トリフルオロメチル) ピリジン



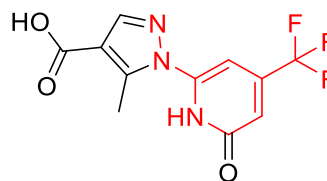
2,6,4-CHrTF

ISK-c-11

WO 2017059191

(Quartet Medicine, Inc., USA)

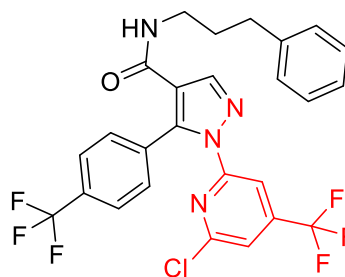
< sepiapterin reductase inhibitors >



US20050080087

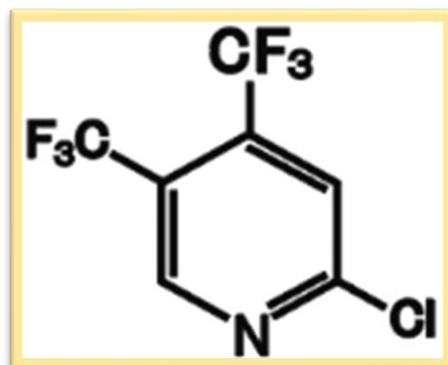
(Bristol-Myers Squibb Company, USA)

< cannabinoid receptor modulators >



2-Chloro-4,5-bis (trifluoromethyl) pyridine

2-クロロ-4,5-ビス(トリフルオロメチル)ピリジン



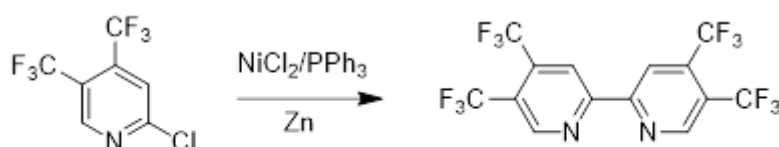
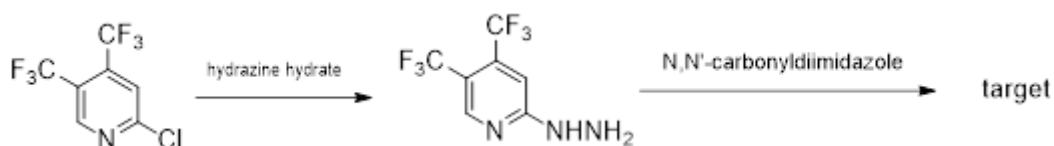
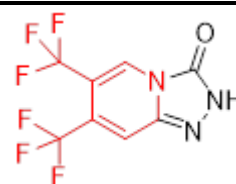
2,4,5-CBiTF

ISK-d-2

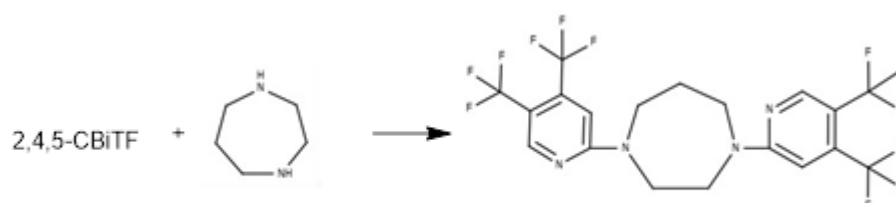
WO 2019043635

(Richter Gedeon Nyrt., Hung.)

< D-amino acid oxidase inhibitors (triazolopyridinone compounds) >



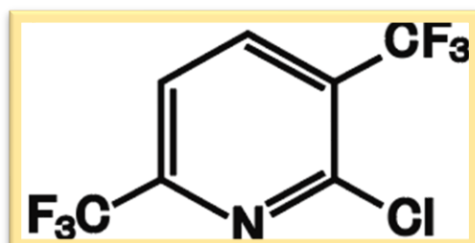
Tetrahedron Letters (2016), 57(21), 2231-2232.



Heterocycles (1990), 31(7), 1217-20.

2-Chloro-3,6-bis (trifluoromethyl) pyridine

2-クロロ 3,6-ビス (トリフルオロメチル) ピリジン

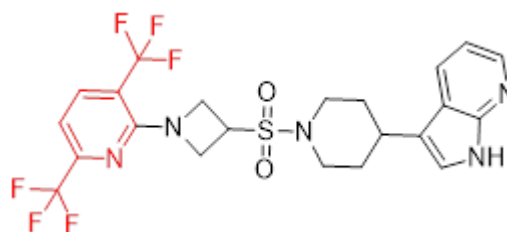


2,3,6-CBiTF

ISK-d-3

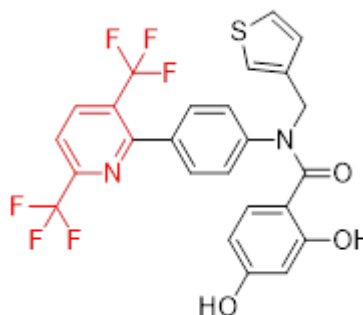
WO 2018078360

(E-Therapeutics PLC, UK)
<cancer, fibrosis and chronic
graft-vs.-host disease (cGVHD) >



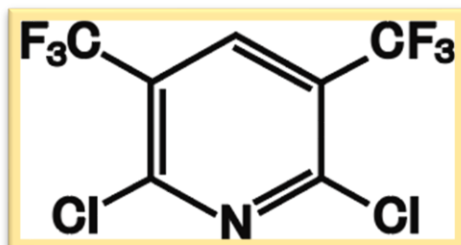
WO 2015040425

(Vernalis (R&D) Limited, UK)
<PDK inhibitors and for inhibition of cancer
cell proliferation >



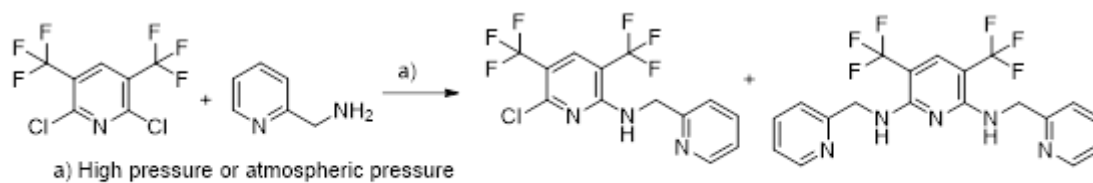
2,6-Dichloro-3,5-bis (trifluoromethyl) pyridine

2,6-ジクロロ-3,5-ビス(トリフルオロメチル)ピリジン



2,6,3,5-DCBITF

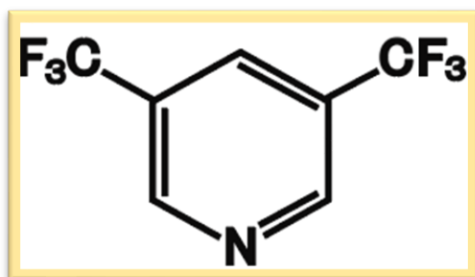
ISK-d-4



Chemistry Express (1992),7(6),473-6.

3,5-Bis (trifluoromethyl) pyridine

3,5-ビス(トリフルオロメチル)ピリジン

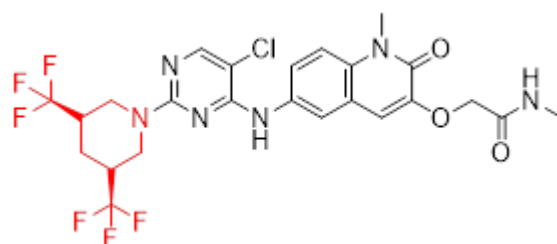


3,5-BiTF

ISK-d-5

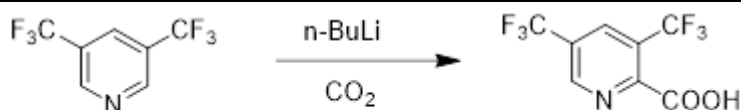
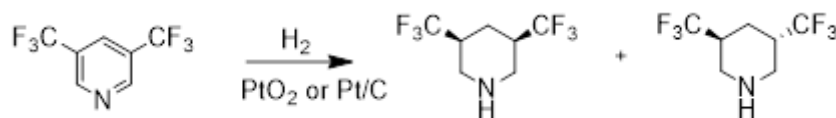
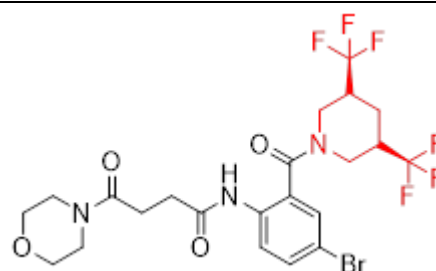
WO 2018108704

(Boehringer Ingelheim International GmbH,
Germany)
<BCL6 inhibitors>



WO 2008098859

(F. Hoffmann-La Roche A.-G., Switz.)
<HCV polymerase inhibitors>



Tetrahedron (1994), 50(42), 12259-66.

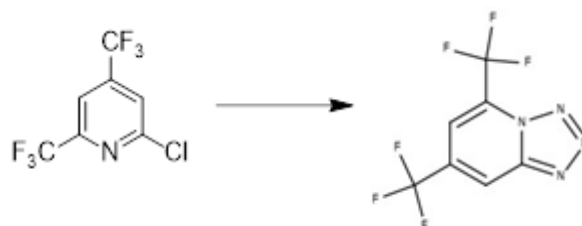
2-Chloro-4,6-bis (trifluoromethyl) pyridine

2-クロロ-4,6-ビス(トリフルオロメチル)ピリジン

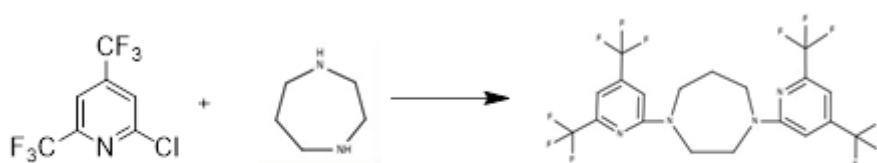


2,4,6-CBITF

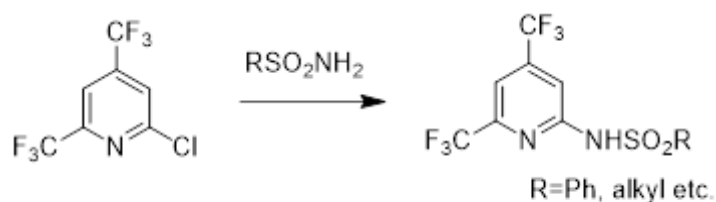
ISK-d-6



Journal of the American Chemical Society (1996), 118(17), 4009-17.



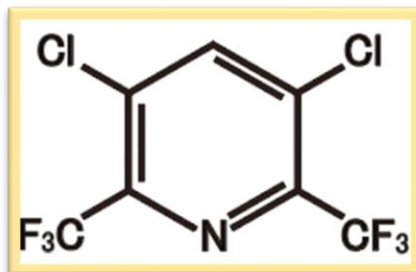
Heterocycles (1990), 31(7), 1217-20.



Chemical & Pharmaceutical Bulletin (2011), 59(6), 783-786.

3,5-Dichloro-2,6-bis (trifluoromethyl) pyridine

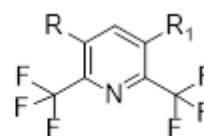
3,5-ジクロロ-2,6-ビス(トリフルオロメチル)ピリジン



3,5,2,6-DCBiTF

ISK-d-7

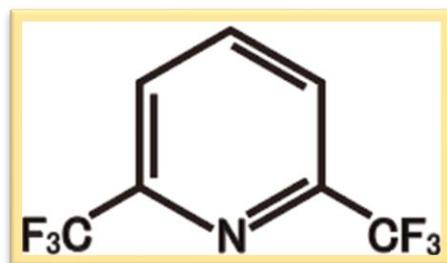
The title compd. ($R = R_1 = \text{Cl}$) was aminated at 8 kbar and 100°C with a variety of secondary amines to give 3,5-diamino-2,6-bis(trifluoromethyl)pyridines ($R = R_1 = \text{pyrrolidino, perhydroazepino, piperidino, morpholino, 4-methylpiperazino, thiomorpholino}$; $R = \text{morpholino, R1 = thiomorpholino}$) in excellent yields.



Chemistry Express (1988), 3(12), 739-42.

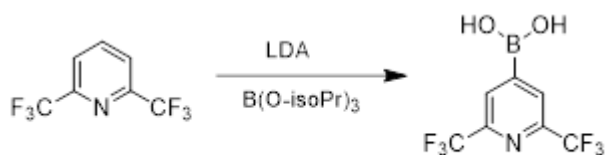
2,6-Bis (trifluoromethyl) pyridine

2,6-ビス(トリフルオロメチル)ピリジン

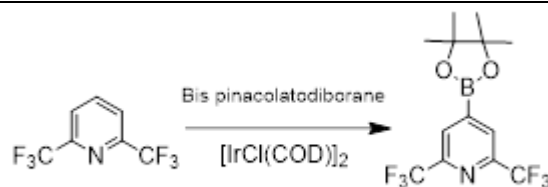


2,6-BiTF

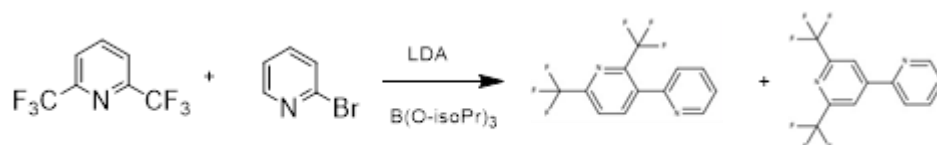
ISK-d-8



New Journal of Chemistry (2017), 41(8), 3029-3035.

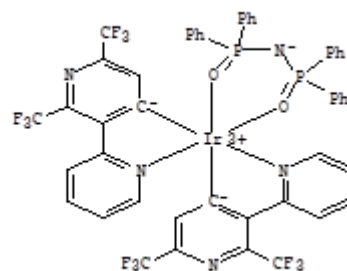


Synthesis (2017), 49(6), 1327-1334.



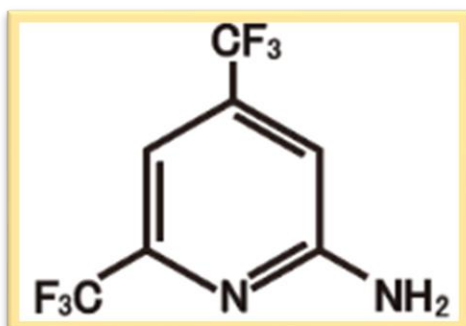
Journal of Materials Chemistry C: Materials for Optical and Electronic Devices (2019), 7(7), 2022-2028.

Journal of Materials Chemistry C: Materials for Optical and Electronic Devices (2019), 7(26), 7953-7958
(Nanjing University)



2-Amino-4,6-bis (trifluoromethyl) pyridine

2-アミノ-4,6-ビス(トリフルオロメチル)ピリジン



2,4,6-ABiTF

ISK-d-9

WO 2018108704

(Ishihara Sangyo Kaisha, Ltd., Japan)

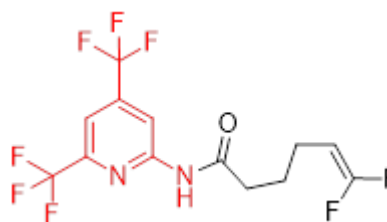
<Preparation of pyridyl-methanamine derivatives as pest control agents>



WO 2003084927

(Ishihara Sangyo Kaisha, Ltd., Japan)

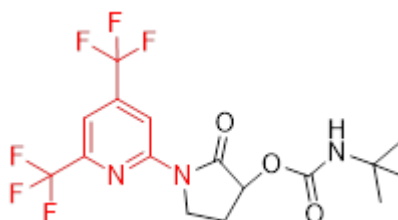
<Haloalkene amides, process for production thereof, and pest controllers containing the same>



WO 9533719

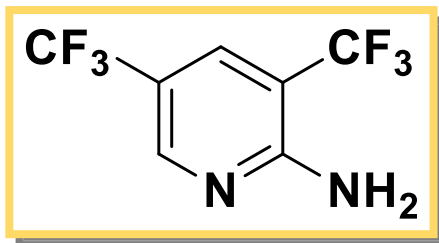
(Zeneca Ltd., UK)

<Preparation of substituted pyrrolidones, thiazolidones, or oxazolidones as herbicides>



2-Amino-3,5-bis (trifluoromethyl) pyridine

2-アミノ-3,5-ビス(トリフルオロメチル)ピリジン



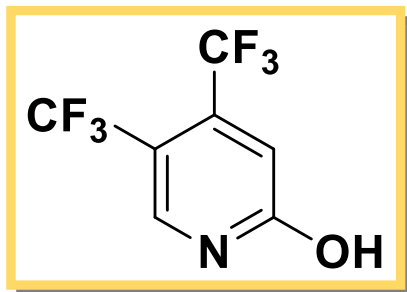
2,3,5-ABiTF

ISK-d-10

NO PATENT

2-Hydroxy-4,5-bis (trifluoromethyl) pyridine

2-ヒドロキシ-4,5-ビス(トリフルオロメチル)ピリジン



2,4,5-HBiTF

ISK-d-11

US 4725607

(Imperial Chemical Industries PLC)

< INSECTICIDAL >

