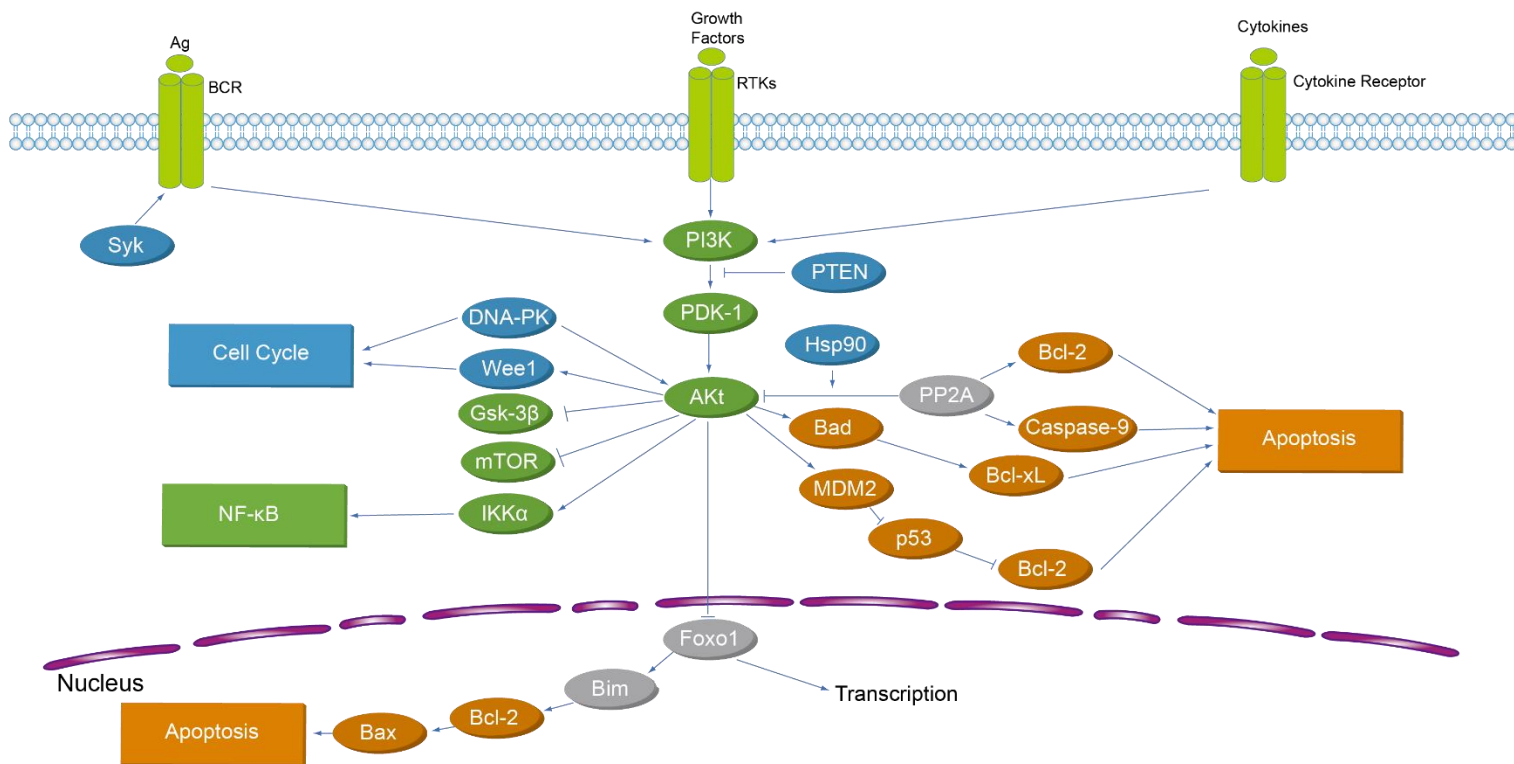


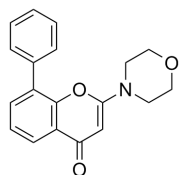
## PI3K/Akt/mTOR経路 関連化合物



- 細胞の生存、増殖、およびアポトーシスの関連研究に有用。
- 固形腫瘍の病態生理および化学療法に対する感受性/耐性に、PI3K/Akt経路に属する多くの遺伝子が関与しています。
- Akt、AMPK、MELK、mTOR、PI3K、PTENなどをターゲット。
- 高純度を保証するためにNMRおよびHPLCにより分析。

# PI3K/Akt/mTOR経路 関連化合物

~PI3K/Akt/mTOR~



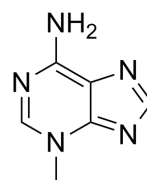
## HY-10108

LY294002

LY294002 is a broad-spectrum inhibitor of PI3K, with IC50 of 0.5/0.57/0.97  $\mu$ M for PI3K  $\alpha$  /  $\delta$  /  $\beta$ , respectively, also potently inhibits CK2 with IC50 of 98 nM.

Target: **PI3K**  
Effect: **Inhibitor**

(CAS No. : 154447-36-6)



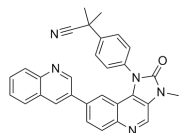
## HY-19312

3-Methyladenine

3-Methyladenine is a selective PI3K inhibitor with IC50 of 25  $\mu$ M and 60  $\mu$ M for Vps34 and PI3K  $\gamma$ , respectively, and it can inhibit all PtdIns3Ks at 10 mM.

Target: **PI3K**  
Effect: **Inhibitor**

(CAS No. : 5142-23-4)



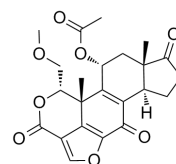
## HY-50673

BEZ235

BEZ235 is a dual pan-class I PI3K and mTOR kinase inhibitor with IC50 of 4 nM/5 nM/7 nM/75 nM, and 6 nM for p110  $\alpha$  /  $\gamma$  /  $\delta$  /  $\beta$  and mTOR (p70S6K), respectively.

Target: **PI3K**  
Effect: **Inhibitor**

(CAS No. : 915019-65-7)



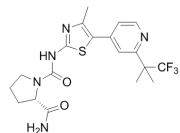
## HY-10197

Wortmannin

Wortmannin is a multi-target inhibitor of PI3K and MLCK with IC50s of 3 nM and 170 nM, respectively.

Target: **PI3K**  
Effect: **Inhibitor**

(CAS No. : 19545-26-7)



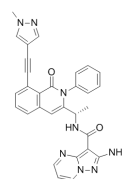
## HY-15244

BYL-719

BYL-719 is a potent and selective PI3K  $\alpha$  inhibitor with IC50 of 5 nM.

Target: **PI3K**  
Effect: **Inhibitor**

(CAS No. : 1217486-61-7)



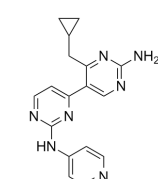
## HY-100716

IPI549

IPI549 is a potent and selective PI3K  $\gamma$  Inhibitor with IC50 of 16 nM.

Target: **PI3K**  
Effect: **Inhibitor**

(CAS No. : 1693758-51-8)



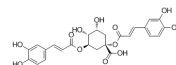
## HY-12794

Vps34-PIK-III

Vps34-PIK-III is a potent and selective inhibitor of VPS34 with an IC50 of 18 nM.

Target: **PI3K**  
Effect: **Inhibitor**

(CAS No. : 1383716-40-2)



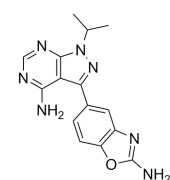
## HY-N1412

1,3-Dicaffeoylquinic acid

1,3-Dicaffeoylquinic acid is a caffeoylquinic acid derivative, and activates PI3K/Akt.

Target: **PI3K**  
Effect: **Activator**

(CAS No. : 19870-46-3)



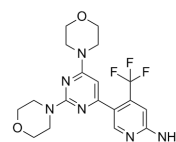
## HY-13328

INK-128

INK-128 is a potent and selective mTOR inhibitor with IC50 of 1 nM, > 200-fold less potent to class I PI3K isoforms, superior in blocking mTORC1/2 and sensitive to pro-invasion genes.

Target: **PI3K**  
Effect: **Inhibitor**

(CAS No. : 1224844-38-5)



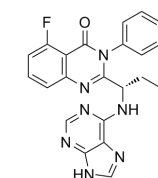
## HY-70063

NVP-BKM120

NVP-BKM120 is a pan-class I PI3K inhibitor, with IC50 of 52 nM/166 nM/116 nM/262 nM for p110  $\alpha$  /  $\beta$  /  $\delta$  /  $\gamma$ , respectively.

Target: **PI3K**  
Effect: **Inhibitor**

(CAS No. : 944396-07-0)



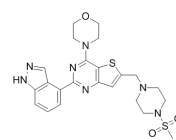
## HY-13026

CAL-101

CAL-101 is a highly selective and potent p110  $\delta$  inhibitor with IC50 of 2.5 nM, is 40- to 300-fold more selective for p110  $\delta$  relative to other PI3K class I enzymes (p110  $\alpha$ , p110  $\beta$ , and p110  $\gamma$ ; IC50 are 820, 565, and 89nM, respectively).

Target: **PI3K**  
Effect: **Inhibitor**

(CAS No. : 870281-82-6)



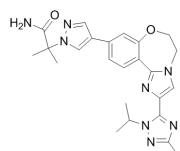
## HY-50094

GDC-0941

GDC-0941 is a potent inhibitor of PI3K  $\alpha$  /  $\delta$  with IC50 of 3 nM, with modest selectivity against p110  $\beta$  (11-fold) and p110  $\gamma$  (25-fold).

Target: **PI3K**  
Effect: **Inhibitor**

(CAS No. : 957054-30-7)



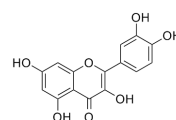
## HY-13898

GDC-0032

GDC-0032 is a potent  $\beta$ -sparing small molecule inhibitor of PI3K, with IC50 values of 0.29 nM, 0.91 nM, 0.97 nM for PI3K  $\alpha$ , PI3K  $\beta$  and PI3K  $\gamma$ , respectively.

Target: **PI3K**  
Effect: **Inhibitor**

(CAS No. : 1282512-48-4)



## HY-18085

Quercetin

Quercetin is a flavonoid with anticancer activity; mitochondrial ATPase and phosphodiesterase inhibitor and Inhibits PI3-kinase activity and slightly inhibits PIP kinase activity.

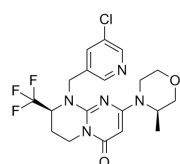
Target: **PI3K**  
Effect: **Inhibitor**

(CAS No. : 117-39-5)

(全ての製品は試験研究用です。試験研究以外の用途にはご利用いただけません。)

# PI3K/Akt/mTOR経路 関連化合物

~PI3K/Akt/mTOR~



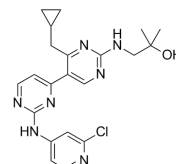
**HY-12481**

**SAR405**

SAR405 is highly potent and selective inhibitor of PIK3C3 with an IC50 of 27 nM.

Target: **PI3K**  
Effect: **Inhibitor**

(CAS No. : 1523406-39-4)



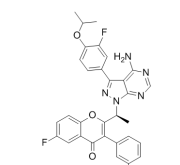
**HY-12795**

**Vps34-IN-1**

Vps34-IN-1 is an inhibitor of Vps34 extracted from patent WO/2012085815 A1, compound example 16a; has an IC50 of 4 nM.

Target: **PI3K**  
Effect: **Inhibitor**

(CAS No. : 1383716-33-3)



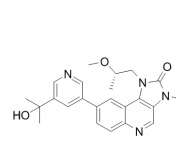
**HY-12279**

**TGR-1202**

TGR-1202 is a novel PI3K  $\delta$  inhibitor, with IC50 and EC50 of 22.2 nM and 24.3 nM, respectively; Also active against CK1  $\epsilon$ , with an EC50 value of 6.0  $\mu$ M.

Target: **PI3K**  
Effect: **Inhibitor**

(CAS No. : 1532533-67-7)



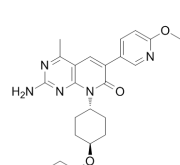
**HY-12513**

**LY3023414**

LY3023414 is an oral ATP competitive inhibitor of the class I PI3K isoforms, mTOR and DNA-PK, extracted from patent WO/2012097039A1, compound example 1, has an IC50 of 64.9 nM, 42.1 nM, 10.6 nM, 19.1 nM for Akt1(pT308), Akt1 (pS473), P70S6(pT389), S6RP

Target: **PI3K**  
Effect: **Inhibitor**

(CAS No. : 1386874-06-1)



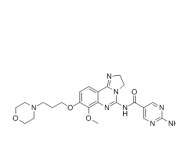
**HY-15177**

**PF-04691502**

PF-04691502 is a potent and selective inhibitor of PI3K and mTOR kinases with antitumor activity.

Target: **PI3K**  
Effect: **Inhibitor**

(CAS No. : 1013101-36-4)



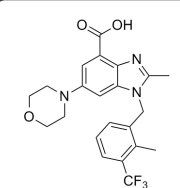
**HY-15346**

**BAY 80-6946**

BAY 80-6946 is an ATP-competitive selective class-I PI3K kinases inhibitor, with IC50s of 0.5, 0.7, 3.7 and 6.4 nM for PI3K  $\alpha$ ,  $\delta$ ,  $\beta$  and  $\gamma$ , and much less active against mTOR (IC50=45 nM) and other PIKs (no inhibition at 1  $\mu$ M).

Target: **PI3K**  
Effect: **Inhibitor**

(CAS No. : 1032568-63-0)



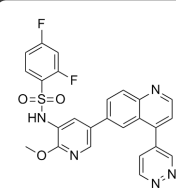
**HY-15245**

**GSK2636771**

GSK2636771 is a potent, orally bioavailable, PI3K  $\beta$ -selective inhibitor, sensitive to PTEN null cell lines.

Target: **PI3K**  
Effect: **Inhibitor**

(CAS No. : 1372540-25-4)



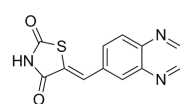
**HY-10297**

**GSK2126458**

GSK2126458 is a highly selective and potent inhibitor of PI3K with Ki of 0.019 nM/0.13 nM/0.024 nM/0.06 nM and 0.18 nM/0.3 nM for p110  $\alpha$  /  $\beta$  /  $\delta$  /  $\gamma$ , mTORC1/2, respectively.

Target: **PI3K**  
Effect: **Inhibitor**

(CAS No. : 1086062-66-9)



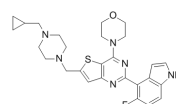
**HY-10109**

**AS-605240**

AS-605240 is a specific and orally active inhibitor of the PI3K  $\gamma$ , with IC50 of 8 nM, and Ki of 7.8 nM.

Target: **PI3K**  
Effect: **Inhibitor**

(CAS No. : 648450-29-7)



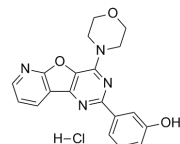
**HY-12235**

**PI-3065**

PI-3065 is a novel potent and selective PI3K p110  $\delta$  inhibitor with IC50 of 15 nM; exhibits > 100 fold selectivity against p110  $\alpha$ , p110  $\beta$ , p110  $\gamma$ , DNA-PK and mTOR.

Target: **PI3K**  
Effect: **Inhibitor**

(CAS No. : 955977-50-1)



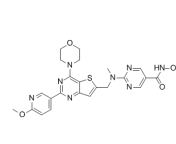
**HY-10115A**

**PI-103 Hydrochloride**

PI-103 hydrochloride is a potent PI3K/Akt and mTOR inhibitor with IC50 values of 2 nM for recombinant PI3K isoform p110  $\alpha$  and 30 nM for mTOR.

Target: **PI3K**  
Effect: **Inhibitor**

(CAS No. : 371935-79-4)



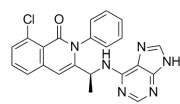
**HY-13522**

**CUDC-907**

CUDC-907 potently inhibits class I PI3Ks as well as classes I and II HDAC enzymes with IC50 of 1.7/5.0/1.8/2.8 nM and 19/54/39 nM for HDAC1/2/3/10 and PI3K  $\alpha$  /  $\beta$  /  $\delta$ , respectively.

Target: **PI3K**  
Effect: **Inhibitor**

(CAS No. : 1339928-25-4)



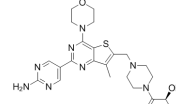
**HY-17044**

**Duvelisib**

Duvelisib (IPI-145) is a novel and selective PI3K  $\delta$  /  $\gamma$  inhibitor with Ki and IC50 of 23 pM/243 pM and 1 nM/50 nM, highly selective for PI3K  $\delta$  /  $\gamma$  than other protein kinases.

Target: **PI3K**  
Effect: **Inhibitor**

(CAS No. : 1201438-56-3)



**HY-13246**

**GDC-0980**

GDC-0980 is a potent, class I PI3K inhibitor for PI3K  $\alpha$  /  $\beta$  /  $\delta$  /  $\gamma$  with IC50 of 5 nM/27 nM/7 nM/14 nM in cell-free assays, respectively, and also a mTOR inhibitor with Ki of 17 nM in a cell-free assay, and highly selective versus other PIKK family kinases.

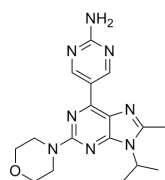
Target: **PI3K**  
Effect: **Inhibitor**

(CAS No. : 1032754-93-0)

(全ての製品は試験研究用です。試験研究以外の用途にはご利用いただけません。)

# PI3K/Akt/mTOR経路 関連化合物

~PI3K/Akt/mTOR~



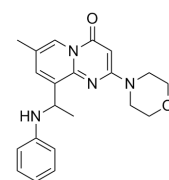
**HY-16585**

**VS-5584**

VS-5584 (SB2343) is a potent and selective dual PI3K/mTOR inhibitor for mTOR, PI3K  $\alpha$  /  $\beta$  /  $\delta$  /  $\gamma$  with IC50 of 3.4 nM and 2.6–21 nM, respectively.

Target: **PI3K**  
Effect: **Inhibitor**

(CAS No. : 1246560-33-7)



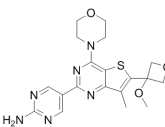
**HY-10114**

**TGX-221**

TGX-221 is a potent, selective, and cell membrane permeable inhibitor of the PI3K p110 $\beta$  catalytic subunit, used for cancer treatment.

Target: **PI3K**  
Effect: **Inhibitor**

(CAS No. : 663619-89-4)



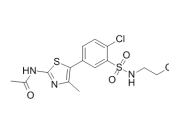
**HY-12763**

**GNE-317**

GNE-317 is a potent PI3K/mTOR inhibitor that can cross the blood-brain barrier; shows potent suppression of the PI3K pathway in the brain of mice with intact BBB.

Target: **PI3K**  
Effect: **Inhibitor**

(CAS No. : 1394076-92-6)



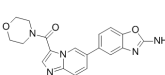
**HY-12046**

**PIK-93**

PIK-93 is the first potent, synthetic PI4K (PI4KIII $\beta$ ) inhibitor with IC50 of 19 nM; shown to inhibit PI3K  $\alpha$  with IC50 of 39 nM.

Target: **PI3K**  
Effect: **Inhibitor**

(CAS No. : 593960-11-3)



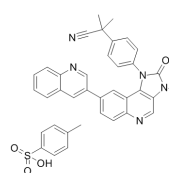
**HY-12285**

**MLN1117**

MLN1117 (INK1117) is a selective p110 $\alpha$  inhibitor with IC50 of 15 nM.

Target: **PI3K**  
Effect: **Inhibitor**

(CAS No. : 1268454-23-4)



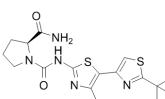
**HY-15174**

**BEZ235 Tosylate**

NVP-BEZ235 is a dual PI3K and mTOR kinase inhibitor with IC50 values of 4, 75, 7, 5 nM for PI3K  $\alpha$ ,  $\beta$ ,  $\gamma$ ,  $\delta$ , respectively.

Target: **PI3K**  
Effect: **Inhibitor**

(CAS No. : 1028385-32-1)



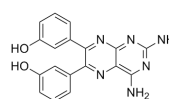
**HY-13261**

**A66**

A66 is a highly specific and selective p110 $\alpha$  inhibitor with IC50 of 32 nM.

Target: **PI3K**  
Effect: **Inhibitor**

(CAS No. : 1166227-08-2)



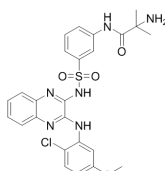
**HY-10111**

**TG100-115**

TG100-115 is a PI3K  $\gamma$  and  $\delta$  inhibitor (IC50 = 83 and 235 nM, respectively)

Target: **PI3K**  
Effect: **Inhibitor**

(CAS No. : 677297-51-7)



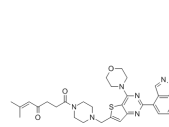
**HY-16526**

**XL-147**

XL147(SAR245408; pilaralisib) is a potent, orally bioavailable inhibitor of the class I PI3K family of lipid kinases with IC50 values of 39 nM/383 nM/36 nM/23 nM for PI3K  $\alpha$  /  $\beta$  /  $\delta$  /  $\gamma$ , respectively; less potent to PI3K  $\beta$ .

Target: **PI3K**  
Effect: **Inhibitor**

(CAS No. : 934526-89-3)



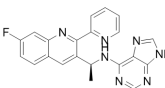
**HY-16596**

**CNX-1351**

CNX-1351 is a potent and isoform-selective targeted covalent inhibitor of the lipid kinase PI3K  $\alpha$  with IC50 of 6.8 nM; 20–400 times less potent against  $\beta$ ,  $\gamma$ , and  $\delta$ .

Target: **PI3K**  
Effect: **Inhibitor**

(CAS No. : 1276105-89-5)



**HY-12948**

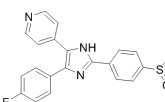
**AMG319**

AMG319 is a potent and selective PI3K  $\delta$  inhibitor with IC50 of 18 nM, also inhibits PI3K  $\gamma$  with IC50 of 850 nM.

Target: **PI3K**  
Effect: **Inhibitor**

(CAS No. : 1608125-21-8)

他にも多数の  
PI3K 関連化合物  
を取扱っています。



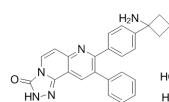
**HY-10256**

**SB 203580**

SB 203580 is a p38 MAPK inhibitor with IC50 of 0.3–0.5  $\mu$ M, also blocks PKB phosphorylation with IC50 of 3–5  $\mu$ M.

Target: **Akt**  
Effect: **Inhibitor**

(CAS No. : 152121-47-6)



**HY-10358**

**MK 2206 (dihydrochloride)**

MK 2206 is an orally active allosteric Akt inhibitor with IC50 of 5 nM/12 nM/65 nM for Akt1/2/3, respectively.

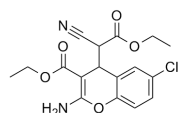
Target: **Akt**  
Effect: **Inhibitor**

(CAS No. : 1032350-13-2)

(全ての製品は試験研究用です。試験研究以外の用途にはご利用いただけません。)

# PI3K/Akt/mTOR経路 関連化合物

~PI3K/Akt/mTOR~



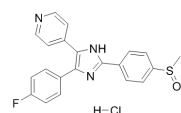
## HY-18749

SC79

SC79 is a unique specific Akt activator that may be used to enhance Akt activity in various physiological and pathological conditions.

Target: **Akt**  
Effect: **Inhibitor**

(CAS No. : 305834-79-1)



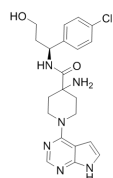
## HY-10256A

SB 203580 hydrochloride

SB 203580 hydrochloride is a p38 MAPK inhibitor with IC50 of 0.3-0.5  $\mu$  M, also blocks PKB phosphorylation with IC50 of 3-5  $\mu$  M.

Target: **Akt**  
Effect: **Inhibitor**

(CAS No. : 869185-85-3)



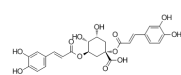
## HY-15431

AZD5363

AZD5363 is a potent pan-AKT kinase inhibitor with IC50 of 3, 7 and 7 nM for Akt1,2 and 3, respectively.

Target: **Akt**  
Effect: **Inhibitor**

(CAS No. : 1143532-39-1)



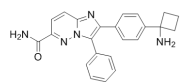
## HY-N1412

1,3-Dicaffeoylquinic acid

1,3-Dicaffeoylquinic acid is a caffeoylquinic acid derivative, and activates PI3K/Akt.

Target: **Akt**  
Effect: **Activator**

(CAS No. : 19870-46-3)



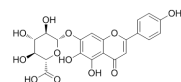
## HY-100018

BAY1125976

BAY1125976 is a selective allosteric Akt1/2 inhibitor; inhibits Akt1 and Akt2 activity with IC50 values of 5.2 nM and 18 nM at 10  $\mu$  M ATP, respectively.

Target: **Akt**  
Effect: **Inhibitor**

(CAS No. : 1402608-02-9)



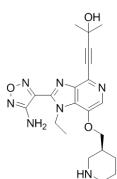
## HY-N0751

Scutellarin

Scutellarin, an active flavone isolated from Scutellaria baicalensis, can down-regulate the STAT3/Girdin/Akt signaling in HCC cells, and inhibits RANKL-mediated MAPK and NF- $\kappa$ B signaling pathway in osteoclasts.

Target: **Akt**  
Effect: **Inhibitor**

(CAS No. : 27740-01-8)



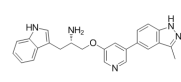
## HY-10249

GSK-690693

GSK-690693 is a pan-Akt inhibitor targeting Akt1/2/3 with IC50 of 2/13/9 nM in cell-free assays, also sensitive to the AGC kinase family: PKA, PrkX and PKC isozymes.

Target: **Akt**  
Effect: **Inhibitor**

(CAS No. : 937174-76-0)



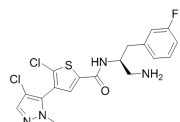
## HY-10425

A-443654

A-443654 is a potent small-molecule inhibitor of all three Akt serine/threonine kinases, with Ki of 160 pM for Akt1.

Target: **Akt**  
Effect: **Inhibitor**

(CAS No. : 552325-16-3)



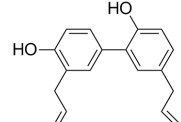
## HY-15727

Afuresertib

Afuresertib is an orally available, ATP-competitive, pan-AKT inhibitor with Ki of 0.08, 2 and 2.6 nM against AKT1, AKT2 and AKT3, respectively.

Target: **Akt**  
Effect: **Inhibitor**

(CAS No. : 1047644-62-1)



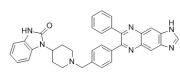
## HY-N0003

Honokiol

Honokiol(NSC-293100), a hydroxylated biphenyl compound isolated from the Chinese herb Magnolia officinalis, has been reported to have anticancer activities in a variety of cancer cell lines.

Target: **Akt**  
Effect: **Inhibitor**

(CAS No. : 35354-74-6)



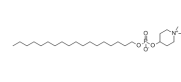
## HY-10355

AKT inhibitor VIII

AKT inhibitor VIII is a cell-permeable quinoxaline compound that has been shown to potently, selectively, allosterically, and reversibly inhibit Akt1, Akt2, and Akt3 activity with IC50s of 58 nM, 210 nM, and 2.12  $\mu$  M, respectively.

Target: **Akt**  
Effect: **Inhibitor**

(CAS No. : 612847-09-3)



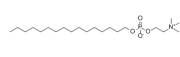
## HY-50909

Perifosine

Perifosine is an oral Akt inhibitor.

Target: **Akt**  
Effect: **Inhibitor**

(CAS No. : 157716-52-4)



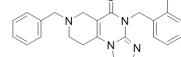
## HY-13685

Miltefosine

Miltefosine is a PI3K/Akt inhibitor, dramatically reduces HIV-1 production from long-living virus-infected macrophages.

Target: **Akt**  
Effect: **Inhibitor**

(CAS No. : 58066-85-6)



## HY-15615A

TIC10

TIC10 is a potent, orally active, and stable TRAIL inducer, also inhibits Akt and ERK activity.

Target: **Akt**  
Effect: **Inhibitor**

(CAS No. : 1616632-77-9)

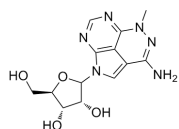
(全ての製品は試験研究用です。試験研究以外の用途にはご利用いただけません。)

# PI3K/Akt/mTOR経路 関連化合物

~PI3K/Akt/mTOR~

## HY-15457

### Triciribine



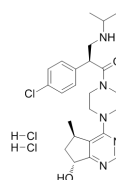
Triciribine is a DNA synthesis inhibitor, also inhibits Akt and HIV-1/2 with IC50 of 130 nM, and 0.02-0.46  $\mu$ M, respectively.

Target: **Akt**  
Effect: **Inhibitor**

(CAS No. : 35943-35-2)

## HY-15186A

### GDC-0068 dihydrochloride



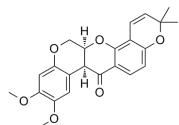
GDC-0068 dihydrochloride is a highly selective pan-Akt inhibitor targeting Akt1/2/3 with IC50 of 5/18/8 nM, 620-fold selectivity over PKA.

Target: **Akt**  
Effect: **Inhibitor**

(CAS No. : 1396257-94-5)

## HY-13425

### Deguelin



Deguelin, a naturally occurring rotenoid, is known to be an Akt inhibitor and to have an anti-tumor effect on several cancers; decrease levels of phosphorylated Akt.

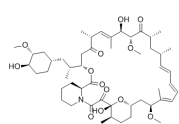
Target: **Akt**  
Effect: **Inhibitor**

(CAS No. : 522-17-8)

他にも多数の  
Akt 関連化合物  
を取扱っています。

## HY-10219

### Rapamycin



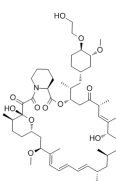
Rapamycin is a specific mTOR inhibitor with IC50 of 0.1 nM.

Target: **mTOR**  
Effect: **Inhibitor**

(CAS No. : 53123-88-9)

## HY-10218

### Everolimus



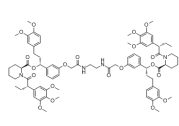
Everolimus is a targeted, highly specific agent with an IC50 for binding to isolated FKBP-12, or FKBP-12 complexed to mTOR of 5 to 6 nM, and no significant activity against other protein kinases.

Target: **mTOR**  
Effect: **Inhibitor**

(CAS No. : 159351-69-6)

## HY-16046

### AP1903



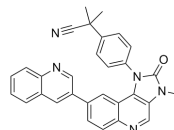
AP1903 is a homodimer binding to FKBP; elicits potent and dosedependent apoptotic death of engineered cell line HT1080 in culture with an EC50 of 0.1 nM

Target: **mTOR**  
Effect: **Chemical**

(CAS No. : 195514-63-7)

## HY-50673

### BEZ235



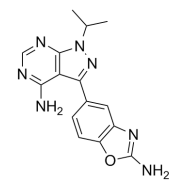
BEZ235 is a dual pan-class I PI3K and mTOR kinase inhibitor with IC50 of 4 nM/5 nM/7 nM/75 nM, and 6 nM for p110  $\alpha$  /  $\gamma$  /  $\delta$  /  $\beta$  and mTOR (p70S6K), respectively.

Target: **mTOR**  
Effect: **Inhibitor**

(CAS No. : 915019-65-7)

## HY-13328

### INK-128



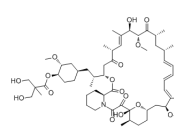
INK-128 is a potent and selective mTOR inhibitor with IC50 of 1 nM, > 200-fold less potent to class I PI3K isoforms, superior in blocking mTORC1/2 and sensitive to pro-invasion genes.

Target: **mTOR**  
Effect: **Inhibitor**

(CAS No. : 1224844-38-5)

## HY-50910

### Temsirolimus



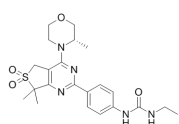
Temsirolimus (CCI-779) directly inhibits mTOR kinase activity with IC50 values of  $1.76 \pm 0.15 \mu$ M.

Target: **mTOR**  
Effect: **Inhibitor**

(CAS No. : 162635-04-3)

## HY-100222

### CZ415



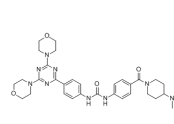
CZ415 is a potent and highly selective mTOR inhibitor.

Target: **mTOR**  
Effect: **Inhibitor**

(CAS No. : 1429639-50-8)

## HY-10681

### PKI-587



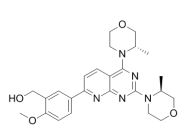
PKI-587(PF-05212384) is a highly potent dual PI3K/mTOR kinase inhibitor with IC50 of 0.4 nM, 5.4 nM and 1.6 nM for PI3K  $\alpha$ , PI3K  $\gamma$  and mTOR, respectively.

Target: **mTOR**  
Effect: **Inhibitor**

(CAS No. : 1197160-78-3)

## HY-10422

### AZD-8055



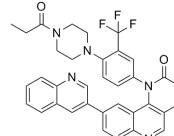
AZD-8055 is a novel ATP-competitive inhibitor of mTOR kinase activity, with an IC50 of 0.8 nM.

Target: **mTOR**  
Effect: **Inhibitor**

(CAS No. : 1009298-09-2)

## HY-13003

### Torin 1



Torin 1 is a potent inhibitor of mTORC, with IC50 values of 2 nM and 10 nM against mTORC1 and mTORC2, respectively.

Target: **mTOR**  
Effect: **Inhibitor**

(CAS No. : 1222998-36-8)

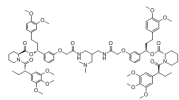
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# PI3K/Akt/mTOR経路 関連化合物

~PI3K/Akt/mTOR~

## HY-13992

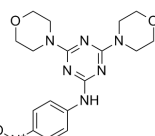
AP20187



AP20187 is a cell-permeable molecule used to dimerize FK506-binding protein (FKBP) fusion proteins and initiate biological signaling cascades and gene expression or disrupt protein-protein interactions.

Target: **mTOR**  
Effect: **Modulator**

(CAS No. : 195514-80-8)



## HY-B0795

MHY1485

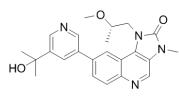
MHY1485 is a mTOR activator; inhibits the autophagic process by inhibition of fusion between autophagosomes and lysosomes leading to the accumulation of LC3II protein and enlarged autophagosomes.

Target: **mTOR**  
Effect: **Activator**

(CAS No. : 326914-06-1)

## HY-12513

LY3023414



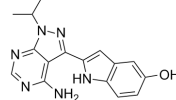
LY3023414 is an oral ATP competitive inhibitor of the class I PI3K isoforms, mTOR and DNA-PK, extracted from patent WO/2012097039A1, compound example 1, has an IC50 of 64.9 nM, 42.1 nM, 10.6 nM, 19.1 nM for Akt1(pT308), Akt1 (pS473), P70S6(pT389), S6RP

Target: **mTOR**  
Effect: **Inhibitor**

(CAS No. : 1386874-06-1)

## HY-10474

PP 242



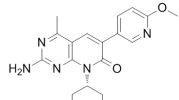
PP 242 is the first selective and ATP competitive mTOR inhibitor with IC50 of 8 nM.

Target: **mTOR**  
Effect: **Inhibitor**

(CAS No. : 1092351-67-1)

## HY-15177

PF-04691502



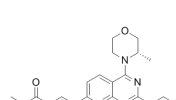
PF-04691502 is a potent and selective inhibitor of PI3K and mTOR kinases with antitumor activity.

Target: **mTOR**  
Effect: **Inhibitor**

(CAS No. : 1013101-36-4)

## HY-15247

AZD2014



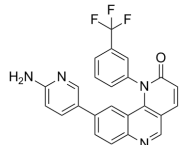
AZD2014 is a small-molecule ATP competitive mTOR inhibitor with IC50 of 2.81 nM.

Target: **mTOR**  
Effect: **Inhibitor**

(CAS No. : 1009298-59-2)

## HY-13002

Torin 2



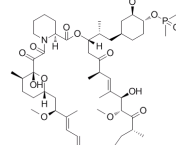
Torin 2 is a mTOR inhibitor with EC50 of 0.25 nM, and exhibits 800-fold selectivity over PI3K (EC50: 200 nM).

Target: **mTOR**  
Effect: **Inhibitor**

(CAS No. : 1223001-51-1)

## HY-50908

Deforolimus



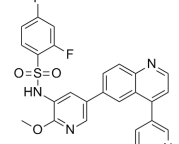
Deforolimus (AP23573; MK-8669) is a potent and selective mTOR inhibitor; inhibits S6 phosphorylation with an IC50 of 0.2 nM in HT-1080 cells.

Target: **mTOR**  
Effect: **Inhibitor**

(CAS No. : 572924-54-0)

## HY-10297

GSK2126458



GSK2126458 is a highly selective and potent inhibitor of PI3K with Ki of 0.019 nM/0.13 nM/0.024 nM/0.06 nM and 0.18 nM/0.3 nM for p110  $\alpha$  /  $\beta$  /  $\delta$  /  $\gamma$ , mTORC1/2, respectively.

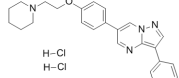
Target: **mTOR**  
Effect: **Inhibitor**

(CAS No. : 1086062-66-9)

他にも多数の  
mTOR 関連化合物  
を取扱っています。

## HY-13418

Dorsomorphin dihydrochloride



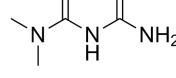
Dorsomorphin dihydrochloride is a potent and selective AMPK inhibitor, that is competitive with ATP, with Ki of  $109 \pm 16$  nM in the absence of AMP.

Target: **AMPK**  
Effect: **Inhibitor**

(CAS No. : 1219168-18-9)

## HY-17471A

Metformin hydrochloride



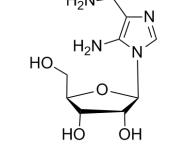
Metformin (hydrochloride) is a first-line drug for the treatment of type 2 diabetes and there is increasing evidence of a potential efficacy of this agent as an anti-cancer drug.

Target: **AMPK**  
Effect: **Activator**

(CAS No. : 1115-70-4)

## HY-13417

AICAR



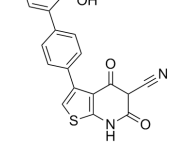
AICAR is an activator of AMP-activated protein kinase (AMPK), down-regulates the insulin receptor expression in HepG2 cells.

Target: **AMPK**  
Effect: **Activator**

(CAS No. : 2627-69-2)

## HY-50662

A-769662



A-769662 is a potent, reversible AMPK activator with EC50 of 0.8  $\mu$ M, and has little effect on GPPase/FBPase activity.

Target: **AMPK**  
Effect: **Activator**

(CAS No. : 844499-71-4)

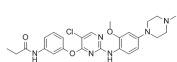
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# PI3K/Akt/mTOR経路 関連化合物

~PI3K/Akt/mTOR~

## HY-15802

WZ4003



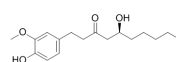
WZ4003 is the first potent and highly specific NUAk kinase inhibitor with IC<sub>50</sub> of 20 nM/100 nM for NUAk1/NUAK2, without significant inhibition on other 139 kinases.

Target: **AMPK**  
Effect: **Inhibitor**

(CAS No. : 1214265-58-3)

## HY-14615

[6]-Gingerol



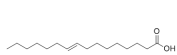
[6]-Gingerol is an active compound isolated from Ginger (*Zingiber officinale* Rosc), exhibits a variety of biological activities including anticancer, anti-inflammation, and anti-oxidation.

Target: **AMPK**  
Effect: **Activator**

(CAS No. : 23513-14-6)

## HY-N2341

Palmitelaidic Acid



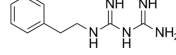
Palmitelaidic acid is the trans isomer of palmitoleic acid.

Target: **AMPK**  
Effect: **98.00%**

(CAS No. : 10030-73-6)

## HY-16397A

Phenformin hydrochloride



HCl

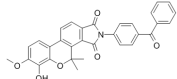
Phenformin (hydrochloride) is a hydrochloride salt of phenformin that is an anti-diabetic drug from the biguanide class, can activate AMPK activity.

Target: **AMPK**  
Effect: **Activator**

(CAS No. : 834-28-6)

## HY-12831

Ampkinone



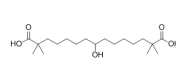
Ampkinone is a small molecule activator of AMPK; stimulate functional activation of AMPK via the phosphorylation at Thr172 in cultured L6 muscle cells with an EC<sub>50</sub> value of 4.3 μM, enhancing glucose uptake by 3.2-fold.

Target: **AMPK**  
Effect: **Activator**

(CAS No. : 1233082-79-5)

## HY-12357

ETC-1002



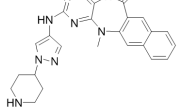
ETC-1002 (ESP-55016) is an activator of hepatic AMP-activated protein kinase (AMPK); also an inhibitor of hepatic ATP-citrate lyase (ACL) with an IC<sub>50</sub> of 29 μM.

Target: **AMPK**  
Effect: **Activator**

(CAS No. : 738606-46-7)

## HY-12334

HTH-01-015



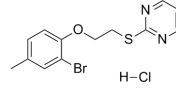
HTH-01-015 is a potent and selective inhibitor of NUAk1 with IC<sub>50</sub> of 100 nM, does not significantly inhibit NUAk2 (IC<sub>50</sub> of >10 μM).

Target: **AMPK**  
Effect: **Inhibitor**

(CAS No. : 1613724-42-7)

## HY-16708A

ZLN024 hydrochloride



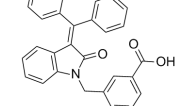
HCl

ZLN024 HCl is a novel AMPK allosteric activator; activated α1β1γ1 and α2β1γ1 by around 2-2.5 fold with an EC<sub>50</sub> of about 1-2 μM.

Target: **AMPK**  
Effect: **Activator**

## HY-15840

YLF-466D



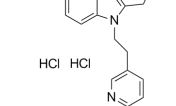
YLF-466D is an allosteric AMPK activator.

Target: **AMPK**  
Effect: **Inhibitor**

(CAS No. : 1273323-67-3)

## HY-14537

Latrepirdine dihydrochloride



HCl HCl

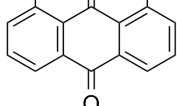
Latrepirdine (dihydrochloride) is a potent activator of AMPK, also an anti-histamine, promote the removal of α-synuclein protein aggregates.

Target: **AMPK**  
Effect: **Activator**

(CAS No. : 97657-92-6)

## HY-B0923

Danthron



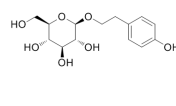
Danthron is a synthetic anthraquinone derivative, currently used as an antioxidant in synthetic lubricants, in the synthesis of antitumor agents, as a fungicide and as an intermediate for making dyes.

Target: **AMPK**  
Effect: **Activator**

(CAS No. : 117-10-2)

## HY-N0109

Salidroside



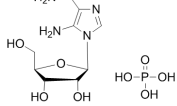
Salidroside is a bioactive phenolic glycoside compound isolated from *Rhodiola crenulata*.

Target: **AMPK**  
Effect: **Activator**

(CAS No. : 10338-51-9)

## HY-13417A

AICAR phosphate



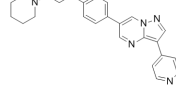
AICAR phosphate is an activator of AMP-activated protein kinase (AMPK), down-regulates the insulin receptor expression in HepG2 cells.

Target: **AMPK**  
Effect: **Activator**

(CAS No. : 681006-28-0)

## HY-13418A

Dorsomorphin



Dorsomorphin is a potent and selective AMPK inhibitor, that is competitive with ATP, with K<sub>i</sub>=109 ± 16 nM in the absence of AMP.

Target: **AMPK**  
Effect: **Inhibitor**

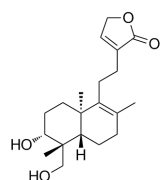
(CAS No. : 866405-64-3)

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# PI3K/Akt/mTOR経路 関連化合物

~PI3K/Akt/mTOR~



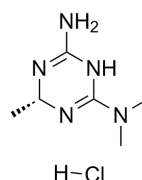
**HY-N0857**

**Deoxyandrographolide**

Deoxyandrographolide is a natural compound extracted from *A. paniculata*; potently inhibit the growth of liver (HepG2 and SK-Hep1) and bile duct (HuCCA-1 and RMCCA-1) cancer cells.

Target: **AMPK**  
Effect: **Activator**

(CAS No. : 79233-15-1)



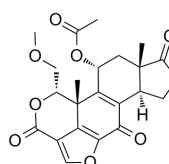
**HY-14771A**

**Imeglimin hydrochloride**

Imeglimin(EMD 387008) is the first in a new tetrahydrotriazine-containing class of oral antidiabetic agents, the glimins. It has been shown to act on the liver, muscle and pancreatic  $\beta$ -cells to uniquely target the key defects of type 2 diabetes.

Target: **AMPK**  
Effect: **Activator**

(CAS No. : 775351-61-6)



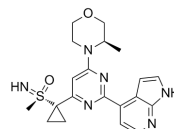
**HY-10197**

**Wortmannin**

Wortmannin is a multi-target inhibitor of PI3K and MLCK with IC50s of 3 nM and 170 nM, respectively.

Target: **ATM/ATR**  
Effect: **Inhibitor**

(CAS No. : 19545-26-7)



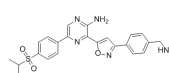
**HY-19323**

**AZD6738**

AZD6738 is a potent inhibitor of ATR kinase with an IC50 of 1 nM.

Target: **ATM/ATR**  
Effect: **Inhibitor**

(CAS No. : 1352226-88-0)



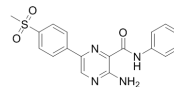
**HY-13902**

**VE-822**

VE-822 is an ATR inhibitor with Ki value of <0.2 nM, also inhibits ATM with Ki of 34 nM.

Target: **ATM/ATR**  
Effect: **Inhibitor**

(CAS No. : 1232416-25-9)



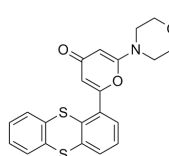
**HY-14731**

**VE-821**

VE-821 is a potent ATP-competitive inhibitor of ATR with Ki/IC50 of 13 nM/26 nM.

Target: **ATM/ATR**  
Effect: **Inhibitor**

(CAS No. : 1232410-49-9)



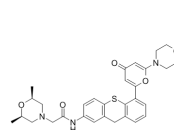
**HY-12016**

**KU-55933**

KU-55933 is a potent ATM inhibitor with an IC50 and Ki of 12.9 and 2.2 nM, respectively, and highly selective for ATM as compared to DNA-PK, PI3K/PI4K, ATR and mTOR.

Target: **ATM/ATR**  
Effect: **Inhibitor**

(CAS No. : 587871-26-9)



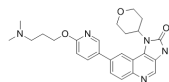
**HY-12061**

**KU-60019**

KU-60019 is an improved ATM kinase-specific inhibitor with IC50 of 6.3 nM.

Target: **ATM/ATR**  
Effect: **Inhibitor**

(CAS No. : 925701-46-8)



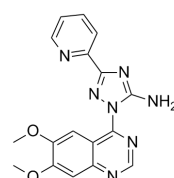
**HY-100016**

**AZD0156**

AZD0156 is an orally active, potent and selective ATM kinase inhibitor, used for cancer treatment.

Target: **ATM/ATR**  
Effect: **Inhibitor**

(CAS No. : 1821428-35-6)



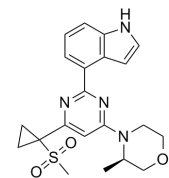
**HY-11002**

**CP-466722**

CP-466722 is rapidly reversible potential ATM kinase inhibitor.

Target: **ATM/ATR**  
Effect: **Inhibitor**

(CAS No. : 1080622-86-1)



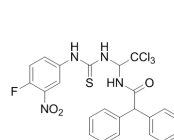
**HY-15557**

**AZ20**

AZ20 is a potent and selective inhibitor of ATR with an IC50 of 5 nM; 8-fold selectivity over mTOR (IC50=38 nM).

Target: **ATM/ATR**  
Effect: **Inhibitor**

(CAS No. : 1233339-22-4)



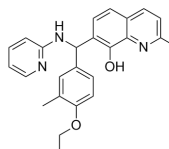
**HY-15520**

**CGK733**

CGK 733 is a small molecule inhibitor reportedly targeting the kinase activities of ATM and ATR.

Target: **ATM/ATR**  
Effect: **Inhibitor**

(CAS No. : 905973-89-9)



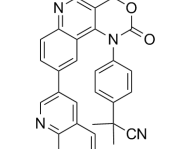
**HY-16667**

**HLM006474**

HLM006474 is a potent inhibitor of melanocytes proliferation and subsequent invasion in a three-dimensional tissue culture model system; interferes with E2F activity.

Target: **ATM/ATR**  
Effect: **Inhibitor**

(CAS No. : 353519-63-8)



**HY-15521**

**ETP-46464**

ETP-46464 is a cell-permeable quinoline-containing heterocyclic compound that acts as a potent inhibitor against mTOR, ATR, DNA-PK, PI 3-K  $\alpha$ , and ATM (IC50= 0.6, 14, 36, 170, and 545 nM, respectively).

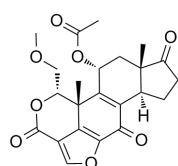
Target: **ATM/ATR**  
Effect: **Inhibitor**

(CAS No. : 1345675-02-6)

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# PI3K/Akt/mTOR経路 関連化合物

~PI3K/Akt/mTOR~



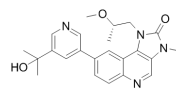
## HY-10197

### Wortmannin

Wortmannin is a multi-target inhibitor of PI3K and MLCK with IC50s of 3 nM and 170 nM, respectively.

Target: **DNA-PK**  
Effect: **Inhibitor**

(CAS No. : 19545-26-7)



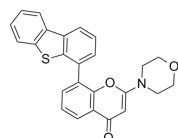
## HY-12513

### LY3023414

LY3023414 is an oral ATP competitive inhibitor of the class I PI3K isoforms, mTOR and DNA-PK, extracted from patent WO/2012097039A1, compound example 1, has an IC50 of 64.9 nM, 42.1 nM, 10.6 nM, 19.1 nM for Akt1(pT308), Akt1 (pS473), P70S6(pT389), S6RP

Target: **DNA-PK**  
Effect: **Inhibitor**

(CAS No. : 1386874-06-1)



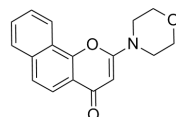
## HY-11006

### KU-57788

KU-57788 is a potent and selective inhibitor of DNA-PK, a modest inhibitor of BRD4 and BRDT, with IC50s of 13 nM, 1 μM and 3.5 μM, respectively, and also increases CRISPR/Cas9-mediated editing frequencies.

Target: **DNA-PK**  
Effect: **Inhibitor**

(CAS No. : 503468-95-9)



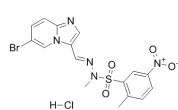
## HY-15719

### NU 7026

NU 7026 is a novel specific DNA-PK inhibitor with IC50 of 0.23±0.01 μM, also inhibits PI3K with IC50 of 13±3 μM.

Target: **DNA-PK**  
Effect: **Inhibitor**

(CAS No. : 154447-35-5)



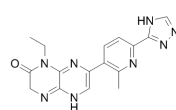
## HY-13281

### PIK-75

PIK-75 is a p110α inhibitor with IC50 of 5.8 nM (200-fold more potently than p110β), isoform-specific mutants at Ser773, and also potently inhibits DNA-PK with IC50 of 2 nM.

Target: **DNA-PK**  
Effect: **Inhibitor**

(CAS No. : 372196-77-5)



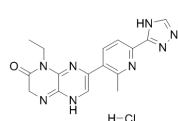
## HY-16962

### CC-115

CC-115 is a inhibitor of mTOR/DNA-PK (IC50= 21/ 13 nM).

Target: **DNA-PK**  
Effect: **Inhibitor**

(CAS No. : 1228013-15-7)



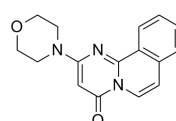
## HY-16962A

### CC-115 hydrochloride

CC-115 hydrochloride is a inhibitor of mTOR/DNA-PK (IC50= 21/ 13 nM).

Target: **DNA-PK**  
Effect: **Inhibitor**

(CAS No. : 1300118-55-1)



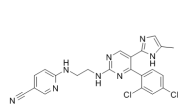
## HY-19341

### Compound 401

Compound 401 is a synthetic inhibitor of DNA-PK (IC50 = 0.28 μM) that also targets mTOR but not PI3K.

Target: **DNA-PK**  
Effect: **Inhibitor**

(CAS No. : 168425-64-7)



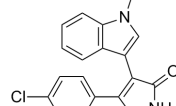
## HY-10182

### CHIR-99021

CHIR-99021 is a GSK-3α/β inhibitor with IC50 of 10 nM/6.7 nM; > 500-fold selectivity for GSK-3 versus its closest homologs CDC2 and ERK2, as well as other protein kinases.

Target: **GSK-3**  
Effect: **Inhibitor**

(CAS No. : 252917-06-9)



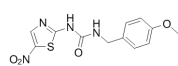
## HY-12012

### SB 216763

SB 216763 is potent and selective glycogen synthase kinase-3 (GSK-3) inhibitor, with IC50 value of 34 nM.

Target: **GSK-3**  
Effect: **Inhibitor**

(CAS No. : 280744-09-4)



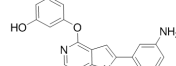
## HY-10512

### AR-A014418

AR-A014418 is a selective and effective GSK3β inhibitor with an IC50 value of 104 +/- 27 nM; no significant inhibition on 26 other kinases.

Target: **GSK-3**  
Effect: **Inhibitor**

(CAS No. : 487021-52-3)



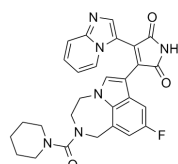
## HY-10590

### TWS119

TWS119 is an inhibitor of glycogen synthase kinase -3β (IC50 = 30 nM).

Target: **GSK-3**  
Effect: **Inhibitor**

(CAS No. : 601514-19-6)



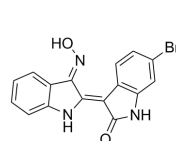
## HY-16294

### LY2090314

LY2090314 is a potent inhibitor of glycogen synthase kinase-3 (GSK-3) with IC50 values of 1.5 nM and 0.9 nM for GSK-3α and GSK-3β, respectively.

Target: **GSK-3**  
Effect: **Inhibitor**

(CAS No. : 603288-22-8)



## HY-10580

### BIO

BIO is a potent and selective inhibitor of GSK-3 and CDK1-cyclinB complex with IC50s of 5 nM/320 nM/83 nM for GSK-3α/β/CDK1/CDK5, respectively.

Target: **GSK-3**  
Effect: **Inhibitor**

(CAS No. : 667463-62-9)

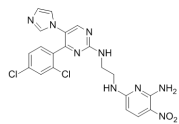
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# PI3K/Akt/mTOR経路 関連化合物

~PI3K/Akt/mTOR~

## HY-13076

### CHIR-98014



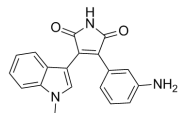
CHIR-98014 is a selective GSK3 inhibitor with IC50s of 0.65 nM and 0.58 nM for GSK-3 $\alpha$  and GSK-3 $\beta$ ; potentiates insulin activation of glucose transport and utilization in vitro and in vivo.

Target: **GSK-3**  
Effect: **Inhibitor**

(CAS No. : 252935-94-7)

## HY-100207

### CP21R7



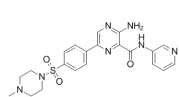
CP21R7 is a potent and selective GSK-3 $\beta$  inhibitor.

Target: **GSK-3**  
Effect: **Inhibitor**

(CAS No. : 125314-13-8)

## HY-15761

### AZD2858



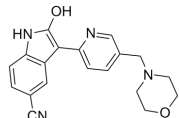
AZD2858 is a selective GSK-3 inhibitor with an IC50 of 68 nM, inhibits tau phosphorylation at the S396 site, activates Wnt signaling pathway.

Target: **GSK-3**  
Effect: **Inhibitor**

(CAS No. : 486424-20-8)

## HY-13862

### AZD1080



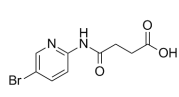
AZD1080 is a potent and selective GSK3 inhibitor.

Target: **GSK-3**  
Effect: **Inhibitor**

(CAS No. : 612487-72-6)

## HY-12524

### Bikinin



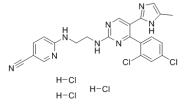
Bikinin(Abrasin) is a potent inhibitor of plant GSK-3/Shaggy-like kinase; activates BR signaling downstream of the BR receptor.

Target: **GSK-3**  
Effect: **Inhibitor**

(CAS No. : 188011-69-0)

## HY-10182B

### CHIR-99021 trihydrochloride



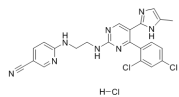
CHIR-99021 trihydrochloride is a GSK-3 $\alpha$  /  $\beta$  inhibitor with IC50 of 10 nM/6.7 nM; > 500-fold selectivity for GSK-3 versus its closest homologs CDC2 and ERK2, as well as other protein kinases.

Target: **GSK-3**  
Effect: **Inhibitor**

(CAS No. : 1782235-14-6)

## HY-10182A

### CHIR-99021 monohydrochloride



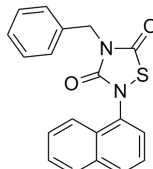
CHIR-99021 monohydrochloride is a GSK-3 $\alpha$  /  $\beta$  inhibitor with IC50 of 10 nM/6.7 nM; > 500-fold selectivity for GSK-3 versus its closest homologs CDC2 and ERK2, as well as other protein kinases.

Target: **GSK-3**  
Effect: **Inhibitor**

(CAS No. : 1797989-42-4)

## HY-14872

### Tideglusib



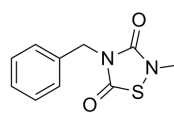
Tideglusib is an irreversible GSK-3 inhibitor with IC50 of 5 nM and 60 nM for GSK-3 $\beta$  WT (1 h preincubation) and GSK-3 $\beta$  C199A (1 h preincubation), respectively.

Target: **GSK-3**  
Effect: **Inhibitor**

(CAS No. : 865854-05-3)

## HY-11012

### TDZD-8



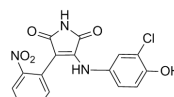
TDZD-8(NP 01139) is a selective inhibitor of GSK-3, a thiazolidinone derivative, non-ATP competitive inhibitor of GSK-3 $\beta$  (IC50 = 2  $\mu$ M); does not inhibit Cdk-1/cyclin B, CK-II, PKA or PKC at >100  $\mu$ M.

Target: **GSK-3**  
Effect: **Inhibitor**

(CAS No. : 327036-89-5)

## HY-15438

### SB 415286



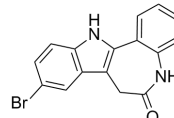
SB 415286 is a potent and selective cell-permeable, ATP-competitive inhibitor of GSK3 $\alpha$  with an IC50 value of 78 nM (similar potency for GSK3 $\beta$ ) and a Ki value of 31 nM.

Target: **GSK-3**  
Effect: **Inhibitor**

(CAS No. : 264218-23-7)

## HY-12302

### Kenpaullone



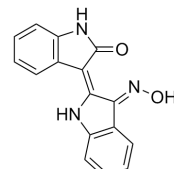
Kenpaullone is an ATP-competitive inhibitor of several CDKs as well as GSK-3 $\beta$ , with an IC50 value of 0.23  $\mu$ M for GSK-3 $\beta$  and 0.4, 0.68, 0.85, and 0.47  $\mu$ M for CDK1/cyclin B, CDK2/cyclin A, CDK5/p25, and lymphocyte kinase, respectively.

Target: **GSK-3**  
Effect: **Inhibitor**

(CAS No. : 142273-20-9)

## HY-19807

### Indirubin-3'-monoxime



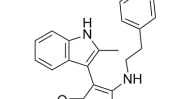
Indirubin-3'-monoxime is a powerful inhibitor of GSK-3 $\beta$  with IC50 of 22nM, also inhibits CDK1/5 (IC50 = 180/100 nM).

Target: **GSK-3**  
Effect: **Inhibitor**

(CAS No. : 160807-49-8)

## HY-12292

### IM-12



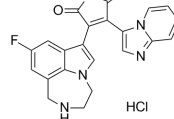
IM-12 is a potent GSK-3 $\beta$  inhibitor with IC50 of 53 nM; shows a significant activity in several biological tests which was comparable or even outplayed the effects of the known SB-216763.

Target: **GSK-3**  
Effect: **Inhibitor**

(CAS No. : 1129669-05-1)

## HY-13973A

### GSK-3 inhibitor 1



GSK-3 inhibitor 1 is a potent GSK-3 inhibitor.

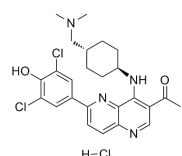
Target: **GSK-3**  
Effect: **Inhibitor**

(CAS No. : 603272-51-1)

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# PI3K/Akt/mTOR経路 関連化合物

~PI3K/Akt/mTOR~



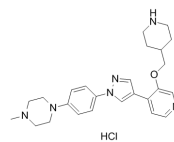
## HY-15512A

### OTSSP167 hydrochloride

OTSSP167 Hcl is a highly potent MELK inhibitor (IC50 = 0.41 nM) and inhibited the phosphorylation of PSMA1 (proteasome subunit alpha type 1) and DBNL (drebrin-like).

Target: **MELK**  
Effect: **Inhibitor**

(CAS No. : 1431698-10-0)

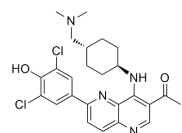


## HY-100368A

### MELK-8a hydrochloride

MELK-8a hydrochloride is a novel maternal embryonic leucine zipper kinase (MELK) inhibitor with an IC50 of 2 nM.

Target: **MELK**  
Effect: **Inhibitor**



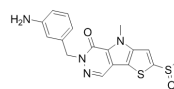
## HY-15512

### OTSSP167

OTSSP167 is a highly potent MELK inhibitor (IC50 = 0.41 nM) and inhibited the phosphorylation of PSMA1 (proteasome subunit alpha type 1) and DBNL (drebrin-like).

Target: **MELK**  
Effect: **Inhibitor**

(CAS No. : 1431697-89-0)



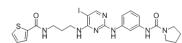
## HY-18657

### TEPP-46

TEPP-46 is a potent and selective activator of recombinant pyruvate kinase M2 (PKM2) with half-maximum activating concentration (AC50 value) of 92 nM, and has little or no effect on PKM1, PKL and PKR.

Target: **PDK-1**  
Effect: **Activator**

(CAS No. : 1221186-53-3)



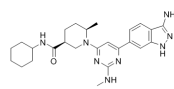
## HY-10514

### BX795

BX795 is a potent and selective dual inhibitor of TBK1/PDK1 with IC50s of 2 nM/6 nM respectively; > 50 fold selectivity over PKA, PKC, c-Kit, GSK3  $\beta$  etc.

Target: **PDK-1**  
Effect: **Inhibitor**

(CAS No. : 702675-74-9)



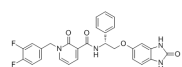
## HY-14981

### GSK2334470

GSK2334470 is a highly specific and potent inhibitor of PDK1 with an IC50 of 10 nM.

Target: **PDK-1**  
Effect: **Inhibitor**

(CAS No. : 1227911-45-6)



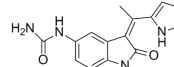
## HY-14440

### PDK1 inhibitor

PDK1 inhibitor is a potent and selective inhibitor of PDK1 with potential as anticancer agent.

Target: **PDK-1**  
Effect: **Inhibitor**

(CAS No. : 1001409-50-2)



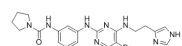
## HY-13842

### BX517

BX517 is a potent and selective inhibitor of PDK1 with IC50 of 6 nM.

Target: **PDK-1**  
Effect: **Inhibitor**

(CAS No. : 850717-64-5)



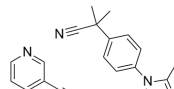
## HY-11005

### BX-912

BX-912 is a selective inhibitor of 3-Phosphoinositide-dependent Kinase-1 (PDK1) with IC50 of 12 nM; >10 fold selectivity over PKA, PKC, C-Kit, EGFR etc.

Target: **PDK-1**  
Effect: **Inhibitor**

(CAS No. : 702674-56-4)



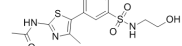
## HY-13333

### NVP-BAG956

NVP-BAG956(BAG 956) is a potent, ATP-competitive and selective dual PI3K and PDK1 inhibitor in vitro and in vivo, with IC50 values to be 56, 444, 34, 117 and 240 nM for PI3K p110 alpha, beta, delta and gamma and PDK1 kinases, respectively.

Target: **PDK-1**  
Effect: **Inhibitor**

(CAS No. : 853910-02-8)



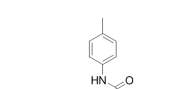
## HY-12046

### PIK-93

PIK-93 is the first potent, synthetic PI4K (PI4KIII  $\beta$ ) inhibitor with IC50 of 19 nM; shown to inhibit PI3K  $\alpha$  with IC50 of 39 nM.

Target: **PI4K**  
Effect: **Inhibitor**

(CAS No. : 593960-11-3)



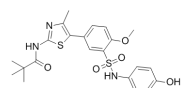
## HY-15679

### PI4KIII beta inhibitor 3

PI4KIII beta inhibitor 3 is a novel and high effective PI4KIII beta inhibitor with IC50 of 5.7 nM.

Target: **PI4K**  
Effect: **Inhibitor**

(CAS No. : 1245319-54-3)



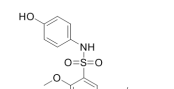
## HY-100198

### PI4KIII beta-IN-10

PI4KIII beta-IN-10 is the most potent PI4KIII  $\beta$  inhibitor currently reported, with very minor off-target inhibition of PI4KIII  $\beta$  related lipid kinases (IC50 = 3.6 nM).

Target: **PI4K**  
Effect: **Inhibitor**

(CAS No. : 1881233-39-1)



## HY-19798

### PI4KIII beta-IN-9

PI4KIII  $\beta$ -IN-9 is a potent PI4KIII  $\beta$  inhibitor (IC50 of 7 nM) and is >140-fold selective over PI3K  $\gamma$  and >20-fold selective over PI3K  $\delta$ , and shows no inhibition of vps34 at concentrations up to 20  $\mu$ M.

Target: **PI4K**  
Effect: **Inhibitor**

(CAS No. : 1429624-84-9)

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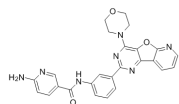
# PI3K/Akt/mTOR経路 関連化合物

～PI3K/Akt/mTOR～

## HY-13228

### YM-201636

YM-201636 is a potent and selective PIKfyve inhibitor with an IC<sub>50</sub> of 33 nM.



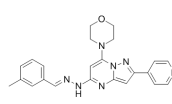
Target: **PIKfyve**  
Effect: **Inhibitor**

(CAS No. : 371942-69-7)

## HY-15982

### APY0201

APY0201 is a potent, highly selective, ATP-competitive PIKfyve inhibitor (IC<sub>50</sub>=5.2 nM) that interrupts the conversion of phosphatidylinositol 3-phosphate (PtdIns3P) to PtdIns(3,5)P<sub>2</sub>; a unique small molecular IL-12/23 production inhibitor.



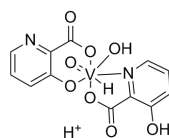
Target: **PIKfyve**  
Effect: **Inhibitor**

(CAS No. : 1232221-74-7)

## HY-13074

### VO-Ohpic trihydrate

VO-Ohpic trihydrate is an extremely potent inhibitor of PTEN with IC<sub>50</sub> of 46±10 nM.



H<sub>2</sub>O H<sub>2</sub>O H<sub>2</sub>O

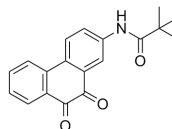
Target: **PTEN**  
Effect: **Inhibitor**

(CAS No. : 476310-60-8)

## HY-15842

### SF1670

SF1670 is a potent and specific phosphatase and tensin homolog deleted on chromosome 10 (PTEN) inhibitor.



Target: **PTEN**  
Effect: **Inhibitor**

(CAS No. : 345630-40-2)

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