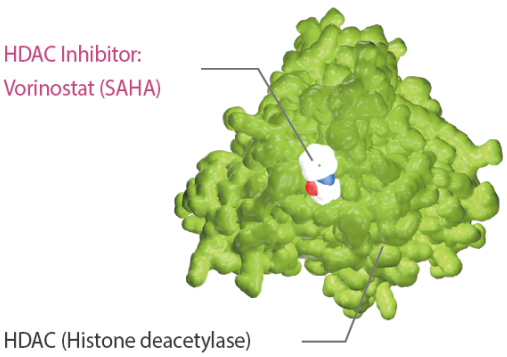
Akt

PKB;Protein kinase B



Akt/PKB (Protein kinase B), a serine/threonine protein kinase with antiapoptotic activity, is one of the major downstream targets of PtdIns(3,4,5)P3 signaling pathway. It contains a pleckstrin homology domain (PH domain) that specifically binds PtdIns(3,4,5)P3 on the plasma membrane. Akt phosphorylation and activation are directly determined by the level of PtdIns(3,4,5)P3 on the plasma membrane, which is regulated by PI3K.

Akt consists of three isoforms: PKBα/Akt1, PKBβ/Akt2 and PKBγ/Akt3. Akt isoforms have an N-terminal PH (pleckstrin homology) domain and a kinase domain, which are separated by a 39-amino-acid hinge region. Catalytically active Akt regulates the function of numerous substrates involved in cell survival, growth, proliferation, metabolism and protein synthesis.

Akt is a crucial mediator of cell survival and its deactivation is implicated in various stress-induced pathological cell death and degenerative diseases.

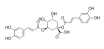
Akt Inhibitors & Modulators

1,3-Dicaffeoylquinic acid

(1,3-O-Dicaffeoylquinic acid; 1,5-Dicaffeoylquinic acid) Cat. No.: HY-N1412

Bioactivity: 1,3-Dicaffeoylquinic acid is a caffeoylquinic acid derivative that exhibits antioxidant activity and radical scavenging activity.

Purity: 99.82%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg

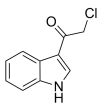


3CAI

Cat. No.: HY-16666

Bioactivity: 3CAI is a potent and specific **AKT1** and **AKT2** inhibitor.

Purity: >98%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 50 mg

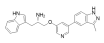


A-443654

Cat. No.: HY-10425

Bioactivity: A-443654 is a potent **Akt1/2/3** inhbitor, with a K_i of 160 pM for Akt1.

Purity: 99.87%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 1 mg, 5 mg, 10 mg

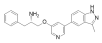


A-674563

Cat. No.: HY-13254

Bioactivity: A-674563 is a potent and selective **Akt1** inhibitor with a K_i of 11 nM.

Purity: 99.87%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 50 mg, 100 mg

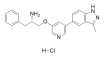


A-674563 hydrochloride

Cat. No.: HY-13254A

Bioactivity: A-674563 hydrochloride is a potent and selective **Akt1** inhibitor with K_i of 11 nM.

Purity: 99.78%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

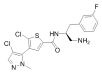


Afuresertib

(GSK2110183C) Cat. No.: HY-15727

Bioactivity: Afuresertib is a potent and ATP-competitive specific **Akt** inhibitor.

Purity: 98.95%
Clinical Data: Phase 1
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

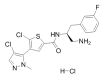


Afuresertib hydrochloride

(GSK 2110183B) Cat. No.: HY-15727A

Bioactivity: Afuresertib hydrochloride is a potent and ATP-competitive specific **Akt** inhibitor.

Purity: 96.98%
Clinical Data: Phase 2
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

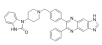


AKT inhibitor VIII

(AKTi-1/2) Cat. No.: HY-10355

Bioactivity: AKT inhibitor VIII (AKTi-1/2) is a cell-permeable quinoxaline compound that has been shown to potently, selectively, allosterically, and reversibly inhibit **Akt1**, **Akt2**, and **Akt3** activity with IC_{50}s of 58 nM, 210 nM, and 2119 nM, respectively.

Purity: 98.02%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

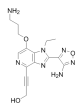


AKT Kinase Inhibitor

Cat. No.: HY-10249A

Bioactivity: AKT Kinase Inhibitor is an **Akt** kinase inhibitor.

Purity: 98.37%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg

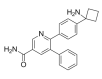


AKT-IN-1

Cat. No.: HY-18296

Bioactivity: AKT-IN-1 is an allosteric **AKT** inhibitor with an IC_{50} of 1.042 μM.

Purity: 99.22%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

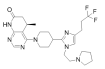


AKT-IN-2

Cat. No.: HY-112148

Bioactivity: AKT-IN-2 is a potent, selective and orally bioavailable **AKT** inhibitor with an **IC_{50}** of 5 nM for **AKT1** [1].

Purity: >98%
Clinical Data: No Development Reported
Size:

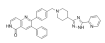


Akt1 and Akt2-IN-1

Cat. No.: HY-50862

Bioactivity: Akt1 and Akt2-IN-1 is an allosteric inhibitor of **Akt1** (**IC_{50}**=3.5 nM) and **Akt2** (IC_{50}=42 nM), with potent and balanced activity.

Purity: 99.71%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO,
5 mg, 10 mg, 50 mg, 100 mg

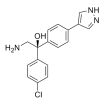


AT13148

Cat. No.: HY-16071

Bioactivity: AT13148 is an orally active and ATP-competitive, multi- **AGC kinase** inhibitor with **IC_{50}**s of 38 nM/402 nM/50 nM, 8 nM, 3 nM, and 6 nM/4 nM for Akt1/2/3, p70S6K, PKA, and ROCKI/II, respectively.

Purity: 99.46%
Clinical Data: Phase 1
Size: 10mM x 1mL in DMSO,
5 mg, 10 mg, 50 mg, 100 mg

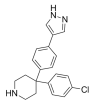


AT7867

Cat. No.: HY-12059

Bioactivity: AT7867 is a potent ATP-competitive inhibitor of **Akt1**/ **Akt2**/ **Akt3** and **p70S6K**/ **PKA** with **IC_{50}**s of 32 nM/17 nM/47 nM and 85 nM/20 nM, respectively.

Purity: 98.68%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO,
5 mg, 10 mg, 50 mg, 100 mg

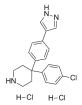


AT7867 dihydrochloride

Cat. No.: HY-12059A

Bioactivity: AT7867 dihydrochloride is a potent ATP-competitive inhibitor of **Akt1**/ **Akt2**/ **Akt3** and **p70S6K**/ **PKA** with **IC_{50}**s of 32 nM/17 nM/47 nM and 85 nM/20 nM, respectively.

Purity: 99.77%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO,
5 mg, 10 mg, 50 mg, 100 mg

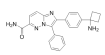


BAY1125976

Cat. No.: HY-100018

Bioactivity: BAY1125976 is a selective allosteric **Akt1/Akt2** inhibitor; inhibits Akt1 and Akt2 activity with **IC_{50}** values of 5.2 nM and 18 nM at 10 μM ATP, respectively.

Purity: 99.63%
Clinical Data: Phase 1
Size: 10mM x 1mL in DMSO,
2 mg, 5 mg, 10 mg, 50 mg, 100 mg



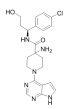
Capivasertib

(AZD5363)

Cat. No.: HY-15431

Bioactivity: Capivasertib (AZD5363) is a potent **pan-AKT** kinase inhibitor with **IC_{50}** of 3, 7 and 7 nM for **Akt1**, **Akt2** and **Akt3**, respectively.

Purity: 99.71%
Clinical Data: Phase 2
Size: 10mM x 1mL in DMSO,
5 mg, 10 mg, 50 mg, 100 mg

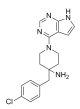


CCT128930

Cat. No.: HY-13260

Bioactivity: CCT128930 is a potent and selective inhibitor of **Akt2** (**IC_{50}** 6 nM) with 28-fold selectivity over the closely related PKA kinase (IC_{50} 168 nM), as well as 20-fold selectivity over p70S6K (IC_{50} 120 nM).

Purity: 99.15%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO,
5 mg, 10 mg, 50 mg, 100 mg



Crosstide

Cat. No.: HY-P0315

Bioactivity: Crosstide is a peptide analog of glycogen synthase kinase α/β fusion protein sequence which is a substrate for **Akt**.

Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

GRPRTSSFAEG

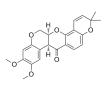
Deguelin

((-)-Deguelin; (-)-cis-Deguelin)

Cat. No.: HY-13425

Bioactivity: Deguelin, a naturally occurring rotenoid, is a potent **PI3K/AKT** inhibitor.

Purity: 99.56%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO,
5 mg, 10 mg, 50 mg

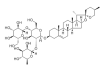


Deltonin

Cat. No.: HY-N2283

Bioactivity: Deltonin, a steroidal saponin, isolated from Dioscorea zingiberensis Wright, with antitumor activity; Deltonin inhibits **ERK1/2** and **AKT** activation.

Purity: 99.0%
Clinical Data: No Development Reported
Size: 5 mg

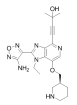


GSK-690693

Cat. No.: HY-10249

Bioactivity: GSK-690693 is an ATP-competitive **pan-Akt** inhibitor with IC_{50}s of 2, 13, 9 nM for Akt1, Akt2 and Akt3, respectively.

Purity: 97.52%
Clinical Data: Phase 1
Size: 10mM x 1mL in DMSO,
5 mg, 10 mg, 50 mg, 100 mg

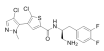


GSK2110183

Cat. No.: HY-15966

Bioactivity: GSK2110183 is an orally bioavailable, selective, ATP-competitive and potent **pan-Akt** kinase inhibitor with K_is of 0.08/2/2.6 nM for **Akt1**/ **Akt2**/ **Akt3** respectively.

Purity: >98%
Clinical Data: Phase 2
Size: 5 mg, 10 mg, 50 mg, 100 mg

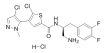


GSK2110183 hydrochloride

Cat. No.: HY-15966A

Bioactivity: GSK2110183 hydrochloride is an orally bioavailable, selective, ATP-competitive and potent **pan-Akt** kinase inhibitor with K_is of 0.08/2/2.6 nM for **Akt1**/ **Akt2**/ **Akt3** respectively.

Purity: 99.49%
Clinical Data: Phase 2
Size: 10mM x 1mL in DMSO,
5 mg, 10 mg, 50 mg, 100 mg



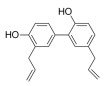
Honokiol

(NSC 293100)

Cat. No.: HY-N0003

Bioactivity: Honokiol is a bioactive, biphenolic phytochemical that possesses potent antioxidative, anti-inflammatory, antiangiogenic, and anticancer activities by targeting a variety of signaling molecules. It inhibits the activation of **Akt** and enhances the phosphorylation of **ERK1/ERK2**.

Purity: 99.90%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO,
50 mg, 100 mg, 200 mg



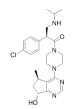
Ipatasertib

(GDC-0068; RG7440)

Cat. No.: HY-15186

Bioactivity: Ipatasertib (GDC-0068) is a highly selective and ATP-competitive **pan-Akt** inhibitor with IC_{50}s of 5, 18 and 8 nM for **Akt1**, **Akt2** and **Akt3**, respectively.

Purity: 98.89%
Clinical Data: Phase 3
Size: 10mM x 1mL in DMSO,
5 mg, 10 mg, 50 mg, 100 mg



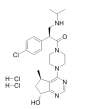
Ipatasertib dihydrochloride

(GDC-0068 (dihydrochloride); RG-7440 dihydrochloride)

Cat. No.: HY-15186A

Bioactivity: Ipatasertib dihydrochloride (GDC-0068 dihydrochloride) is a highly selective pan- **Akt** inhibitor targeting **Akt1**/ **2**/ **3** with IC_{50} of 5/18/8 nM, 620-fold selectivity over PKA.

Purity: 99.59%
Clinical Data: Phase 3
Size: 10mM x 1mL in Water,
5 mg, 10 mg, 50 mg, 100 mg



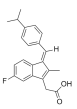
K-80003

(TX-803)

Cat. No.: HY-U00458

Bioactivity: K-80003 is a potent inhibitor of tRXRα-dependent **Akt** activation and cancer cell growth.

Purity: >98%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg

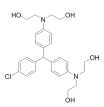


LM22B-10

Cat. No.: HY-104047

Bioactivity: LM22B-10 is an activator of **TrkB/TrkC** neurotrophin receptor, and can induce **TrkB**, **TrkC**, **AKT** and **ERK** activation in vitro and in vivo.

Purity: 98.81%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO,
2 mg, 5 mg, 10 mg, 50 mg, 100 mg

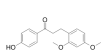


Loureirin A

Cat. No.: HY-N1505

Bioactivity: Loureirin A is a flavonoid extracted from Dragon's Blood, can inhibit **Akt** phosphorylation, and has antiplatelet activity.

Purity: 99.76%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO,
5 mg



Miltefosine

(HePC; Hexadecyl phosphocholine) Cat. No.: HY-13685

Bioactivity: Miltefosine is a broad spectrum antimicrobial, anti-leishmanial, phospholipid agent acting by inhibiting the **PI3K/Akt** activity.

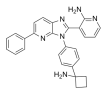
Purity: 98.0%
Clinical Data: Launched
Size: 10mM x 1mL in DMSO, 100 mg, 500 mg, 1 g

Miransertib

(ARQ-092) Cat. No.: HY-19719

Bioactivity: Miransertib (ARQ-092) is an orally bioavailable, selective, and potent allosteric **Akt** inhibitor with **IC_{50}**s of 2.7 nM, 14 nM and 8.1 nM for **Akt1**, **Akt2**, **Akt3**, respectively.

Purity: 99.77%
Clinical Data: Phase 2
Size: 10mM x 1mL in DMSO, 1 mg, 5 mg, 10 mg, 50 mg, 100 mg

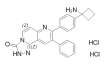


MK 2206 dihydrochloride

Cat. No.: HY-10358

Bioactivity: MK 2206 is an orally active allosteric **Akt** inhibitor with **IC_{50}**s of 5, 12 and 65 nM for **Akt1**, **Akt2** and **Akt3**, respectively.

Purity: 99.47%
Clinical Data: Phase 2
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg, 200 mg



N-Oleoyl glycine

Cat. No.: HY-113204

Bioactivity: N-Oleoyl glycine is a lipoamino acid, which stimulates adipogenesis associated with activation of **CB1 receptor** and **Akt** signaling pathway in 3T3-L1 adipocyte.

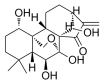
Purity: >98%
Clinical Data:
Size: 10 mg

Oridonin

(NSC-250682; Isodonol) Cat. No.: HY-N0004

Bioactivity: Oridonin (NSC-250682), a diterpenoid isolated from Rabdosia rubescens, acts as an inhibitor of **AKT**, with **IC_{50}**s of 8.4 and 8.9 μM for AKT1 and AKT2; Oridonin possesses anti-tumor, anti-bacterial and anti-inflammatory effects.

Purity: 99.85%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 10 mg, 50 mg, 100 mg, 200 mg, 500 mg

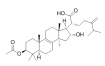


Pachymic acid

(3-O-Acetyltumulosic acid) Cat. No.: HY-N0371

Bioactivity: Pachymic acid is a lanostrane-type triterpenoid from P. cocos. Pachymic acid inhibits **Akt** and **ERK** signaling pathways.

Purity: 99.20%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg



Perifosine

(KRX-0401; NSC 639966; D21266) Cat. No.: HY-50909

Bioactivity: Perifosine is an oral **Akt** inhibitor which inhibits proliferation of different tumor cell lines with **IC_{50}**s of 0.6-8.9 μM.

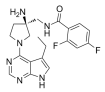
Purity: 98.0%
Clinical Data: Phase 3
Size: 10mM x 1mL in Water, 5 mg, 10 mg, 50 mg, 100 mg

PF-AKT400

(AKT protein kinase inhibitor) Cat. No.: HY-10721

Bioactivity: PF-AKT400 is a broadly selective, potent, ATP-competitive **Akt** inhibitor, displays 900-fold greater selectivity for **PKBα** (**IC_{50}**=0.5 nM) than **PKA** (**IC_{50}**=450 nM).

Purity: 95.75%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg



PHT-427

Cat. No.: HY-12063

Bioactivity: PHT-247 is an inhibitor of the pleckstrin homology (PH) domain of **Akt**, and it is also an inhibitor of **PDPK1** with **K_i**s of 2.7 μM and 5.2 μM and for Akt and PDPK1, respectively.

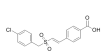
Purity: 98.24%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 10 mg, 50 mg, 100 mg, 200 mg

Recilisib

(Ex-RAD; ON 01210) Cat. No.: HY-101625

Bioactivity: Recilisib is a radioprotectant, which can activate **AKT**, **PI3K** activities in cells.

Purity: 98.0%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg, 10 mg, 20 mg

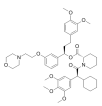


SAFit2

Cat. No.: HY-102080

Bioactivity: SAFit2 is a novel, selective **FK506-binding protein 51** (**FKBP51**) antagonist with a K_i of 6 nM and also enhances **AKT2**-AS160 binding.

Purity: 98.59%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg



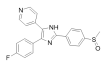
SB 203580

(RWJ 64809)

Cat. No.: HY-10256

Bioactivity: SB 203580 is a widely used **p38 MAPK** inhibitor with an IC_{50} of 0.3-0.5 μM. It shows more than 100-fold selectivity over PKB, LCK, and GSK-3β.

Purity: 99.92%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 10 mg, 50 mg, 100 mg, 200 mg



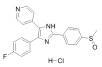
SB 203580 hydrochloride

(RWJ 64809 hydrochloride)

Cat. No.: HY-10256A

Bioactivity: SB 203580 hydrochloride is a widely used **p38 MAPK** inhibitor with an IC_{50} of 0.3-0.5 μM. It shows more than 100-fold selectivity over PKB, LCK, and GSK-3β.

Purity: 99.71%
Clinical Data: No Development Reported
Size: 10mM x 1mL in Water, 10 mg, 50 mg, 100 mg, 200 mg

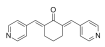


SC66

Cat. No.: HY-19832

Bioactivity: SC66 is a novel **Akt** inhibitor, reduces cell viability in a dose- and time-dependent manner, inhibits colony formation and induces apoptosis in hepatocellular carcinoma (HCC) cells.

Purity: 99.32%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

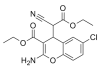


SC79

Cat. No.: HY-18749

Bioactivity: SC79 is a selective and cell-permeable **Akt** activator which activates Akt phosphorylation and inhibits Akt membrane translocation.

Purity: 98.0%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg, 200 mg

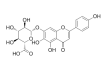


Scutellarin

Cat. No.: HY-N0751

Bioactivity: Scutellarin, an active flavone isolated from Scutellaria baicalensis, can down-regulates the **STAT3/Girdin/Akt** signaling in HCC cells, and inhibits RANKL-mediated **MAPK and NF-κB** signaling pathway in osteoclasts.

Purity: 98.0%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 10 mg, 25 mg, 50 mg



SOLENOPSIN

Cat. No.: HY-16461

Bioactivity: Solenopsin is an ATP-competitive **AKT** inhibitor with IC_{50} value of 10 μM .

Purity: >98%
Clinical Data: No Development Reported
Size: 250 mg, 500 mg

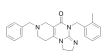
TIC10

(ONC-201)

Cat. No.: HY-15615A

Bioactivity: TIC10 is a potent, orally active, and stable **TRAIL** inducer which acts by inhibiting Akt and ERK, consequently activating Foxo3a and significantly inducing cell surface TRAIL .

Purity: 99.68%
Clinical Data: Phase 2
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg, 200 mg



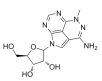
Triciribine

(API-2; NSC 154020; TCN)

Cat. No.: HY-15457

Bioactivity: Triciribine is a **DNA synthesis** inhibitor, also inhibits **Akt** and **HIV-1/2** with IC_{50} of 130 nM, and 0.02-0.46 μM, respectively.

Purity: 99.20%
Clinical Data: Phase 2
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg



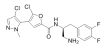
Uprosertib

(GSK2141795)

Cat. No.: HY-15965

Bioactivity: Uprosertib (GSK2141795) is a potent and selective **pan-Akt** inhibitor with IC_{50} values of 180/328/38 nM for Akt1/Akt2/Akt3, respectively.

Purity: 99.85%
Clinical Data: Phase 2
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg, 200 mg



Uprosertib hydrochloride

(GSK2141795 (hydrochloride)) **Cat. No.:** HY-15965A

Bioactivity: Uprosertib hydrochloride (GSK2141795 hydrochloride) is a potent and selective **pan-Akt** inhibitor with IC_{50} values of 180/328/38 nM for Akt1/Akt2/Akt3, respectively.

Purity: >98%
Clinical Data: Phase 2
Size: 5 mg, 10 mg, 50 mg, 100 mg, 200 mg