Apoptosis

Cell apoptosis, sometimes called programmed cell death, is a cellular self-destruction method to remove old and damaged cells during development and aging to protect cells from external disturbances and maintain homeostasis. Apoptosis also occurs as a defense mechanism such as in immune reactions or when cells are damaged by disease or noxious agents.

Apoptosis is controlled by many genes and involves two fundamental pathways: the extrinsic pathway, which transmits death signals by the death receptor (DR), and the intrinsic or mitochondrial pathway. The extrinsic apoptotic pathway is activated by the binding of the death ligand to DRs, including FasL, TNF-α, and TRAIL, on the plasma membrane. The DR, adaptor protein (FADD), and associated apoptosis signaling molecule (caspase-8) form the death-inducing signaling complex (DISC), thus leading to the activation of the effector caspase cascade (caspase-3, -6, and -7). The mitochondria-mediated intrinsic apoptosis pathway is regulated by Bcl-2 family proteins, including proapoptotic (Bid, Bax, Bak) and antiapoptotic proteins (Bcl-2, Bcl-xL).

Abnormalities in cell apoptosis can be a significant component of diseases such as cancer, autoimmune lymphoproliferative syndrome, AIDS, ischemia, and neurodegenerative diseases. These diseases may benefit from artificially inhibiting or activating apoptosis. A short list of potential methods of anti-apoptotic therapy includes stimulation of the IAP (inhibitors of apoptosis proteins) family of proteins, caspase inhibition, PARP (poly [ADP-ribose] polymerase) inhibition, stimulation of the PKB/Akt (protein kinase B) pathway, and inhibition of Bcl-2 proteins. Ferroptosis and necroptosis are recently recognized forms of regulated cell death that differs considerably from apoptosis. Misregulated ferroptosis or necroptosis have also been implicated in multiple physiological and pathological processes, including cancer cell death, neurotoxicity, neurodegenerative diseases, etc.

References:
Target List in Apoptosis

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Apoptosis is a distinctive form of cell death exhibiting specific morphological and biochemical characteristics, including cell membrane blebbing, chromatin condensation, genomic DNA fragmentation, and exposure of specific phagocytosis signaling molecules on the cell surface. Cells undergoing apoptosis differ from those dying through necrosis. Necrotic cells are usually recognized by the immune system as a danger signal and, thus, resulting in inflammation; in contrast, apoptotic death is quiet and orderly.

There are two major pathways of apoptotic cell death induction: The intrinsic pathway, also called the Bcl-2-regulated or mitochondrial pathway, is activated by various developmental cues or cytotoxic insults, such as viral infection, DNA damage and growth-factor deprivation, and is strictly controlled by the BCL-2 family of proteins. The extrinsic or death-receptor pathway is triggered by ligation of death receptors (members of the tumor necrosis factor (TNF) receptor family, such as Fas or TNF receptor-1 (TNFR1)) that contain an intracellular death domain, which can recruit and activate caspase-8 through the adaptor protein Fas-associated death domain (FADD; also known as MORT1) at the cell surface. This recruitment causes subsequent activation of downstream (effector) caspases, such as caspase-3, -6 or -7, without any involvement of the BCL-2 family.

Studies suggest that alterations in cell survival contribute to the pathogenesis of a number of human diseases, including cancer, viral infections, autoimmune diseases, neurodegenerative disorders, and AIDS (acquired immunodeficiency syndrome). Treatments designed to specifically alter the apoptotic threshold may have the potential to change the natural progression of some of these diseases.
# Apoptosis Inhibitors & Modulators

<table>
<thead>
<tr>
<th>Name</th>
<th>Cat. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(2-Hydroxypropyl)-β-cyclodextrin</td>
<td>HY-101103</td>
</tr>
<tr>
<td>(E)-[6]-Dehydroparadol</td>
<td>HY-77293</td>
</tr>
<tr>
<td>2-Methoxyestradiol</td>
<td>HY-12033</td>
</tr>
<tr>
<td>4-Hydroxybenzyl alcohol</td>
<td>HY-Y0892</td>
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<tr>
<td>Adarotene</td>
<td>HY-14808</td>
</tr>
<tr>
<td>Baohuoside I</td>
<td>HY-N0011</td>
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<tr>
<td>Betulin</td>
<td>HY-N0083</td>
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<td>Betulinic acid</td>
<td>HY-10529</td>
</tr>
<tr>
<td>Bisdemethoxycurcumin</td>
<td>HY-N0007</td>
</tr>
<tr>
<td>Cholesterol myristate</td>
<td>HY-N2338</td>
</tr>
</tbody>
</table>

### Bioactivity

**Apoptosis Inhibitors & Modulators**

- **(2-Hydroxypropyl)-β-cyclodextrin** is a widely used drug delivery vehicle to improve the stability and bioavailability.

- **(E)-[6]-Dehydroparadol**, extracted from patent US 9272994, shows growth inhibition and induction of apoptosis against human cancer cells with IC\textsubscript{50} values of 43.02 μM in HCT-116 cell and 41.59 μM in H-1299 cell, respectively.

- **2-Methoxyestradiol** is an angiogenesis inhibitor and apoptosis inducer with potent antineoplastic activity. 2-Methoxyestradiol also destabilizes microtubules.

- **4-Hydroxybenzyl alcohol** is a phenolic compound widely distributed in various kinds of plants. Anti-inflammatory, anti-oxidant, anti-nociceptive activity. Neuroprotective effect. Inhibitor of tumor angiogenesis and growth.\textsuperscript{[1]}\textsuperscript{[2]}

- **Adarotene**, an effective apoptosis inducer, which surprisingly produces DNA damage and exhibits a potent antiproliferative activity on a large panel of human tumor cells.

- **Baohuoside I**, a flavonoid isolated from *Epimedium koreanum* Nakai, acts as an inhibitor of CXCR4, downregulates CXCR4 expression, induces apoptosis and shows anti-tumor activity.

- **Betulin** is a sterol regulatory element-binding protein (SREBP) inhibitor with an IC\textsubscript{50} of 14.5 μM in K562 cell line.

- **Bisdemethoxycurcumin** is a natural derivative of curcumin with anti-inflammatory and anti-cancer activities. IC\textsubscript{50} value: Target. Anticancer natural compound in vitro: BDMC-induced apoptosis was mediated by a combinatorial inhibition of cytoprotective proteins, such as...

- **Cholesterol myristate** is a natural steroid present in traditional Chinese medicine.

---

**Purity:**

- 98.0%

**Clinical Data:**

- No Development Reported

**Size:**

- 10mM x 1mL in DMSO,
  - 5 mg, 10 mg, 50 mg, 100 mg, 500 mg

---

**Purity:**

- 98.87%

**Clinical Data:**

- No Development Reported

**Size:**

- 10mM x 1mL in DMSO,
  - 5 mg, 10 mg, 50 mg

---

**Purity:**

- 98.96%

**Clinical Data:**

- No Development Reported

**Size:**

- 10mM x 1mL in DMSO,
  - 100 mg

---

**Purity:**

- 99.15%

**Clinical Data:**

- No Development Reported

**Size:**

- 10mM x 1mL in DMSO,
  - 10 mg, 50 mg, 100 mg

---

**Purity:**

- 99.60%

**Clinical Data:**

- No Development Reported

**Size:**

- 10mM x 1mL in DMSO,
  - 100 mg

---

**Purity:**

- 99.82%

**Clinical Data:**

- No Development Reported

**Size:**

- 10mM x 1mL in DMSO,
  - 10 mg, 50 mg, 100 mg

---

**Purity:**

- 98.87%

**Clinical Data:**

- No Development Reported

**Size:**

- 10mM x 1mL in DMSO,
  - 10 mg, 50 mg, 100 mg

---

**Purity:**

- 98.0%

**Clinical Data:**

- No Development Reported

**Size:**

- 1 g, 5 g, 10 g

---

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---

[1] Reference 1
[2] Reference 2

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www.MedChemExpress.com
Chondroitin sulfate
(Chondroitin polysulfate)
Cat. No.: HY-82162

**Bioactivity:** Chondroitin sulfate, one of five classes of glycosaminoglycans, has been widely used in the treatment of osteoarthritis. Chondroitin sulfate reduces inflammation mediators and the apoptotic process and is able to reduce protein production of inflammatory cytokines, iNOS and MMPs.

**Purity:** 95.40%
**Clinical Data:** Launched
**Size:** 5 mg, 10 mg

---

Citric acid
Cat. No.: HY-N1428

**Bioactivity:** Citric acid is a weak organic tricarboxylic acid found in citrus fruits. Citric acid is a natural preservative and food tartness enhancer.

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

---

Columbianadin
Cat. No.: HY-N0362

**Bioactivity:** Columbianadin, a natural coumarin from, is known to have various biological activities including anti-inflammatory and anti-cancer effects.

**Purity:** 99.85%
**Clinical Data:** No Development Reported
**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg

---

Costunolide
((+)-Costunolide; Costus lactone)
Cat. No.: HY-N0036

**Bioactivity:** Costunolide, a sesquiterpene lactone, exhibits anti-inflammatory and anti-oxidant properties and mediates apoptosis. IC50 Value: 6.2 - 9.8 μg/mL (sarcoma cells viability) [3] Target: Apoptosis inducer in vitro: Costunolide significantly inhibited RANKL-induced BMM differentiation into...

**Purity:** 99.84%
**Clinical Data:** No Development Reported
**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg

---

Demethoxycurcumin
(Curcumin II; Desmethoxycurcumin; Monodemethoxycurcumin)
Cat. No.: HY-N0006

**Bioactivity:** Demethoxycurcumin (Curcumin II) is a major active curcuminoid; possess anti-inflammatory properties; also exert cytotoxic effects in human cancer cells via induction of apoptosis. IC50 value: Target: in vitro: DMC significantly decreased NO secretion by 35-41% in our inflamed cell model. Decrease in NO...

**Purity:** 99.09%
**Clinical Data:** No Development Reported
**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg

---

Ecteinascidin 770
(Ecteinascidine 770; Et-770)
Cat. No.: HY-101191

**Bioactivity:** Ecteinascidin 770 (ET-770) is a 1,2,3,4-tetrahydroisoquinoline alkaloid with potent anti-cancer activities; inhibits U373MG cells with an IC50 of 4.83 nM.

**Purity:** 98.82%
**Clinical Data:** No Development Reported
**Size:** 10mM x 1mL in DMSO, 1 mg

---

Elesclomol
(STA-4783)
Cat. No.: HY-12040

**Bioactivity:** Elesclomol is an oxidative stress inducer that induces cancer cell apoptosis.

**Purity:** 99.80%
**Clinical Data:** Phase 3
**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

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Epibrassinolide
(24-Epibrassinolide; B1105; BP55)
Cat. No.: HY-N0848

**Bioactivity:** Epibrassinolide is a natural brassinsteroid (BR) derivative, is a plant regulator with a similar structure to mammalian steroids. Epibrassinolide is a potential apoptotic inducer in various cancer cells without affecting the non-tumor cell growth.

**Purity:** 98.00%
**Clinical Data:** No Development Reported
**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg, 500 mg

---

Ginsenoside Rg6
Cat. No.: HY-N0907

**Bioactivity:** Ginsenoside Rg6 is the component isolated from notoginseng. Ginsenoside Rg6 inhibits TNF-α-induced NF-κB transcriptional activity with an IC50 of 29.34±2.22 μM in HepG2 cells. Ginsenoside Rg6 also exhibits apoptosis-inducing effect.

**Purity:** >98%
**Clinical Data:** No Development Reported
**Size:** 5 mg, 10 mg
### Ginsenoside Rh2
(20(S)-Ginsenoside Rh2; 20(S)-Rh2; Ginsenoside-Rh2)

**Cat. No.: HY-N0605**

**Bioactivity:** Ginsenoside Rh2 is isolated from the root of Ginseng. Ginsenoside Rh2 induces the activation of caspase-8 and caspase-9. Ginsenoside Rh2 induces cancer cell apoptosis in a multi-path manner.

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

---

### Ginsenoside Rh4
Cat. No.: HY-N0905

**Bioactivity:** Ginsenoside Rh4 is a rare saponin obtained from Panax notoginseng. Ginsenoside Rh4 activates Bax, caspase 3, caspase 8, and caspase 9. Ginsenoside Rh4 also induces autophagy.

**Purity:** 98.40%
**Clinical Data:** No Development Reported
**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg

---

### Glycochenodeoxycholic acid
(Chenodeoxycholylglycine)

**Cat. No.: HY-N2334**

**Bioactivity:** Glycochenodeoxycholic acid is a bile salt formed in the liver from chenodeoxycholate and glycine; used to induce hepatocyte apoptosis in research.

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

---

### Iberin
(NSC 321801)

**Cat. No.: HY-101413**

**Bioactivity:** Iberin, a sulfoxide analogue of sulforaphane, is a naturally occurring member of isothiocyanate family. It inhibits cell survival with an IC$_{50}$ of 2.3 μM in HL60 cell.

**Purity:** 98.0%
**Clinical Data:** No Development Reported
**Size:** 10mM x 1mL in DMSO, 2 mg

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### Isoalantolactone
((+)-Isoalantolactone; Isohelenin)

**Cat. No.: HY-N0780**

**Bioactivity:** Isoalantolactone is an apoptosis inducer, which also acts as an alkylating agent.

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

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### Kinetin riboside
(N6-Furfuryladenosine)

**Cat. No.: HY-101055**

**Bioactivity:** Kinetin riboside, a cytokinin analog, can induce apoptosis in cancer cells. It inhibits the proliferation of HCT-15 cells with an IC$_{50}$ of 2.5 μM.

**Purity:** 99.80%
**Clinical Data:** No Development Reported
**Size:** 10mM x 1mL in DMSO, 100 mg

---

### MDK83190

**Cat. No.: HY-18633**

**Bioactivity:** MDK83190 is a potent apoptosis activator; increases procaspase-9 processing and subsequent caspase-3 activation.

**Purity:** 97.06%
**Clinical Data:** No Development Reported
**Size:** 10mM x 1mL in DMSO, 10 mg, 50 mg, 100 mg

---

### Meisoindigo
(Dian III; N-Methylisoindigotin; Natura-α)

**Cat. No.: HY-13680**

**Bioactivity:** Meisoindigo(Natura-α; N-Methylisoindigotin; Dian III), a derivative of Indigo naturalis, might induce apoptosis and myeloid differentiation of acute myeloid leukemia (AML).

**Purity:** 96.46%
**Clinical Data:** No Development Reported
**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

---

### Methyl protodioscin
(NSC-698790; Smilax saponin B)

**Cat. No.: HY-N0863**

**Bioactivity:** Methyl protodioscin(NSC-698790) is a furostanol bisglycoside with antitumor properties; shows to reduce proliferation, cause cell cycle arrest.

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

---

### Myricetin
(Cannabiscetin)

**Cat. No.: HY-15097**

**Bioactivity:** Myricetin is a common plant-derived flavonoid with a wide range of activities including strong anti-oxidant, anticancer, antidiabetic and anti-inflammatory activities.

**Purity:** 99.41%
**Clinical Data:** No Development Reported
**Size:** 10mM x 1mL in DMSO, 50 mg, 100 mg, 200 mg, 500 mg

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www.MedChemExpress.com
**NSC348884**

**Cat. No.:** HY-13915

**Bioactivity:** NSC348884 is a nucleophosmin inhibitor that disrupts oligomer formation and induces apoptosis, inhibiting cell proliferation at an IC50 of 1.7-4.0 μM in distinct cancer cell lines.

**Purity:** 99.92%

**Clinical Data:** No Development Reported

**Size:** 1 mg, 10 mg, 25 mg, 50 mg, 100 mg

---

**Osajin**

(CID 95168; NSC 21565)

**Cat. No.:** HY-N3125

**Bioactivity:** Osajin is the major bioactive isoflavone present in the fruit of Maclura pomifera with antitumor, antioxidant and anti-inflammatory activities.

**Purity:** >98%

**Clinical Data:** No Development Reported

**Size:** 5 mg

---

**PBOX 6**

**Cat. No.:** HY-U00446

**Bioactivity:** PBOX 6 is a pyrrolo-1,5-benzoxazepine (PBOX) compound, acts as a microtubule-depolymerizing agent and an apoptotic agent.

**Purity:** 98.0%

**Clinical Data:** No Development Reported

**Size:** 5 mg, 10 mg, 25 mg

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**Polydatin**

(Piceid)

**Cat. No.:** HY-N0120A

**Bioactivity:** Polydatin (Piceid), extracted from the roots of Polygonum cuspidatum Sieb, is a widely used traditional Chinese medicine that possesses anti-inflammatory activity in several experimental models.

**Purity:** 98.42%

**Clinical Data:** Phase 2

**Size:** 10mM x 1mL in DMSO, 100 mg, 200 mg, 500 mg

---

**Sanguinarine**

(Pseudochelerythrine; Sanguinarin)

**Cat. No.:** HY-N0052

**Bioactivity:** Sanguinarine, a benzophenanthridine alkaloid derived from the root of Sanguinaria Canadensis, can stimulate apoptosis via activating the production of reactive oxygen species (ROS). Sanguinarine-induced apoptosis is associated with the activation of JNK and NF-κB.

**Purity:** >98%

**Clinical Data:** No Development Reported

**Size:** 5 mg, 10 mg

---

**Sanguinarine chloride**

(Pseudochelerythrine chloride; Sanguinarium chloride)

**Cat. No.:** HY-N0052A

**Bioactivity:** Sanguinarine chloride, a benzophenanthridine alkaloid derived from the root of Sanguinaria Canadensis, can stimulate apoptosis via activating the production of reactive oxygen species (ROS). Sanguinarine-induced apoptosis is associated with the activation of JNK and NF-κB.

**Purity:** 99.80%

**Clinical Data:** No Development Reported

**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg

---

**Silvestrol aglycone**

**Cat. No.:** HY-13250

**Bioactivity:** Silvestrol aglycone, a glycone of potential anticancer rocaglate derivative from Aglaia foveolata, induces apoptosis in LNCaP cells through the mitochondrial/apoptosome pathway without activation of executioner caspase-3 or -7, S’myc-UTR-LUC inhibitor (IC50= 0.8 nM).

**Purity:** >98%

**Clinical Data:** No Development Reported

**Size:** 10mM x 1mL in DMSO, 1 mg

---

**SMIP004**

**Cat. No.:** HY-15694

**Bioactivity:** SMIP004 is a novel inducer of cancer-cell selective apoptosis of human prostate cancer cells, it was found to downregulate SKP2 and to stabilize p27.

**Purity:** 98.81%

**Clinical Data:** No Development Reported

**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

---

**Taurochenodeoxycholic acid**

(12-Deoxycholytaurine)

**Cat. No.:** HY-N2027

**Bioactivity:** Taurochenodeoxycholic acid is one of the main bioactive substances of animals’ bile acid.

**Purity:** 99.80%

**Clinical Data:** Launched

**Size:** 10mM x 1mL in DMSO, 50 mg

---

**Trabectedin**

(Ecteinascidin 743; ET-743; Ecteinascidin)

**Cat. No.:** HY-50936

**Bioactivity:** Trabectedin (Ecteinascidin-743 or ET-743) is a novel antitumour agent of marine origin with potent antitumour activity both in vitro and in vivo. IC50 Value: 0.1-3.7 nM (breast cancer cell lines) [1] Target: Apoptosis inducer; Anticancer in vitro: Trabectedin induced cytotoxicity and...

**Purity:** 99.83%

**Clinical Data:** Launched

**Size:** 1 mg
<table>
<thead>
<tr>
<th>Product</th>
<th>Cat. No.</th>
<th>Bioactivity</th>
<th>Purity</th>
<th>Clinical Data</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ubiquitin Isopeptidase Inhibitor I, G5 (NSC144303)</td>
<td>HY-100738</td>
<td>Ubiquitin Isopeptidase Inhibitor I, G5 (NSC 144303) is an apoptosis-independent caspase and apoptosis activator with IC_{50} values of 1.76 and 1.6 μM in E1A and E1A/C9DN cells, respectively.</td>
<td>98.0%</td>
<td>No Development Reported</td>
<td>10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg</td>
</tr>
<tr>
<td>[6]-Gingerol</td>
<td>HY-14615</td>
<td>[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.</td>
<td>98.01%</td>
<td>No Development Reported</td>
<td>10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg</td>
</tr>
</tbody>
</table>
Bcl-2 is a family of evolutionarily related proteins. These proteins govern mitochondrial outer membrane permeabilization (MOMP) and can be either pro-apoptotic (Bax, Bad, Bak and Bok among others) or anti-apoptotic (including Bcl-2 proper, Bcl-xL, and Bcl-w, among an assortment of others). There are a total of 25 genes in the Bcl-2 family known to date. Human genes encoding proteins that belong to this family include: Bak1, Bax, Bal-2, Bok, Mcl-1.
Bcl-2 Family Inhibitors & Modulators

**(+)-Apogossypol**
(Apogossypol, NSC736630)  
Cat. No.: HY-13408

**Bioactivity:** (+)-Apogossypol is a pan-BCL-2 antagonist. (+)-Apogossypol binds to Mcl-1, Bcl-2 and Bcl-xL with EC\(_{50}\)s of 2.6, 2.8 and 3.69 μM, respectively.

**Purity:** >98%

**Clinical Data:** No Development Reported

**Size:** 5 mg, 10 mg

---

**(-)-Gossypol acetic acid**  
(AT-101 (acetic acid);
(-)-Gossypol acetic acid; (R)-Gossypol acetic acid)  
Cat. No.: HY-15464A

**Bioactivity:** (R)-(-)-Gossypol acetic acid (AT-101 (acetic acid)) is the levorotatory isomer of a natural product Gossypol. AT-101 is determined to bind to Bcl-2, Mcl-1 and Bcl-xL proteins with K\(_i\)s of 260±30 nM, 170±10 nM, and 480±40 nM, respectively.

**Purity:** 97.40%

**Clinical Data:** Phase 2

**Size:** 10 mM x 1 mL in DMSO, 10 mg, 50 mg

---

**A-1155463**  
Cat. No.: HY-19725

**Bioactivity:** A-1155463 is a highly potent and selective BCL-X\(_L\) inhibitor with an EC\(_{50}\) of 70 nM in Molt-4 cell.

**Purity:** 98.55%

**Clinical Data:** No Development Reported

**Size:** 10 mM x 1 mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

---

**A-1210477**  
Cat. No.: HY-12468

**Bioactivity:** A-1210477 is a potent and selective inhibitor of MCL-1 with a K\(_i\) of 0.45 nM.

**Purity:** 98.89%

**Clinical Data:** No Development Reported

**Size:** 5 mg, 10 mg, 50 mg, 100 mg

---

**A-1331852**  
Cat. No.: HY-19741

**Bioactivity:** A-1331852 is an orally available BCL-X\(_L\) selective inhibitor with a K\(_i\) of less than 10 pM.

**Purity:** 99.21%

**Clinical Data:** No Development Reported

**Size:** 10 mM x 1 mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

---

**ABT-737**  
Cat. No.: HY-50907

**Bioactivity:** ABT-737 is a selective and BH3 mimetic Bcl-xL, Bcl-2 and Bcl-w inhibitor with EC\(_{50}\)s of 78.7 nM, 30.3 nM and 197.8 nM, respectively.

**Purity:** 99.59%

**Clinical Data:** No Development Reported

**Size:** 10 mM x 1 mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg, 200 mg

---

**AMG-176**  
Cat. No.: HY-101565

**Bioactivity:** AMG-176 is a potent, selective and orally bioavailable MCL-1 inhibitor, with a K\(_i\) of 0.13 nM.

**Purity:** 98.96%

**Clinical Data:** No Development Reported

**Size:** 10 mM x 1 mL in DMSO, 1 mg, 5 mg

---
<table>
<thead>
<tr>
<th><strong>AZD-5991</strong></th>
<th>Cat. No.: HY-101533</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>AZD-5991 is a potent and selective Mcl-1 inhibitor with an IC\textsubscript{50} of 0.7 nM in FRET assay and a K\textsubscript{d} of 0.17 nM in surface plasmon resonance (SPR) assay.</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>&gt;98%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>No Development Reported</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>250 mg, 500 mg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>AZD-5991 Racemate</strong></th>
<th>Cat. No.: HY-101533A</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>AZD-5991 Racemate is the racemate of AZD-5991. AZD-5991 Racemate is a Mcl-1 inhibitor with an IC\textsubscript{50} of &lt;3 nM in FRET assay.</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>&gt;98%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>No Development Reported</td>
</tr>
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</table>

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<tr>
<th><strong>AZD-5991 S-enantiomer</strong></th>
<th>Cat. No.: HY-101533B</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>AZD-5991 S-enantiomer is the less active enantiomer of AZD-5991. AZD-5991 S-enantiomer is a Mcl-1 inhibitor with an IC\textsubscript{50} of 6.3 μM in FRET assay and a K\textsubscript{d} of 0.98 μM in surface plasmon resonance (SPR) assay.</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>&gt;98%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>No Development Reported</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>500 mg, 250 mg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>AZD4320</strong></th>
<th>Cat. No.: HY-112416</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>AZD4320 is a novel BH3-mimicking dual BCL2/BCLxL inhibitor with IC\textsubscript{50} of 26 nM, 17 nM, and 170 nM for KPUM-MS3, KPUM-UH1, and STR-428 cells, respectively.</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>&gt;98%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>No Development Reported</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>250 mg, 500 mg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Bak BH3</strong></th>
<th>Cat. No.: HY-P0300</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>Bak BH3 is derived from the BH3 domain of Bak, can antagonize the function of Bcl-xl in cells.</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>&gt;98%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>No Development Reported</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>1 mg, 5 mg, 10 mg</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th><strong>BAM7</strong></th>
<th>Cat. No.: HY-15341</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>BAM7 is a direct and selective activator of proapoptotic BAX with an IC\textsubscript{50} of 3.3 μM.</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>99.57%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>No Development Reported</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>10 mM x 1 mL in DMSO, 10 mg, 50 mg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Bax inhibitor peptide V5</strong> (BIP-V5; BAX Inhibiting Peptide V5)</th>
<th>Cat. No.: HY-P0081</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>Bax inhibitor peptide V5 is a Bax-mediated apoptosis inhibitor, used for cancer treatment.</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>99.79%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>No Development Reported</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>5 mg, 10 mg, 25 mg, 50 mg</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>BH3I-1</strong> (BH11, BH 311)</th>
<th>Cat. No.: HY-100383</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>BH3I-1 is a Bcl-2 family antagonist, which inhibits the binding of the Bak BH3 peptide to Bcl-xl with a K\textsubscript{d} of 2.4±0.2 μM in FP assay. BH3I-1 has a K\textsubscript{d} of 5.3 μM against the p53/MDM2 pair.</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>98.0%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>No Development Reported</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>10 mM x 1 mL in DMSO, 2 mg, 5 mg, 10 mg, 25 mg, 50 mg</td>
</tr>
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<table>
<thead>
<tr>
<th><strong>BM 957</strong></th>
<th>Cat. No.: HY-18106</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>BM 957 is a potent Bcl-2 and Bcl-xl inhibitor, with K\textsubscript{d} of 1.2, &lt;1 nM and IC\textsubscript{50} of 5.4, 6.0 nM respectively.</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>&gt;98%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>No Development Reported</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>250 mg, 500 mg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Bz 423</strong> (BZ48)</th>
<th>Cat. No.: HY-13108</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>Bz 423 is a pro-apoptotic 1,4-benzodiazepine with therapeutic properties in murine models of lupus demonstrating selectivity for autoreactive lymphocytes, and activates Bax and Bak.</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>&gt;98%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>No Development Reported</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>1 mg</td>
</tr>
</tbody>
</table>
Dehydrocorydaline (13-Methylpalmatine)  
**Cat. No.**: HY-N0674

**Bioactivity**: Dehydrocorydaline (13-Methylpalmatine) is an alkaloid isolated from traditional Chinese herb *Corydalis yanhusuo* W.T. Wang. Dehydrocorydaline regulates protein expression of Bax, Bcl-2, activates caspase-7, caspase-8, and inactivates PARP.

**Purity**: >98%

**Clinical Data**: No Development Reported

**Size**: 5 mg, 10 mg, 50 mg

---

FX1

**Cat. No.**: HY-102027

**Bioactivity**: FX1 is a potent and specific **BCL6** inhibitor, with an **IC₅₀** of around 35 μM.

**Purity**: 98.0%

**Clinical Data**: No Development Reported

**Size**: 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg, 200 mg

---

Gambogic Acid (Beta-Guttiferrin)  
**Cat. No.**: HY-N0087

**Bioactivity**: Gambogic acid is derived from the gamboges resin of the tree *Garcinia hanburyi*. Gambogic acid inhibits Bcl-W, Bcl-2, Bcl-B, BFL-1 and Mcl-1 with **IC₅₀** of 1.47 μM, 1.21 μM, 2.02 μM, 0.66 μM, 1.06 μM and 0.79 μM.

**Purity**: 95.06%

**Clinical Data**: No Development Reported

**Size**: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg

---

Ginsenoside Rh4  
**Cat. No.**: HY-N0905

**Bioactivity**: Ginsenoside Rh4 is a rare saponin obtained from Panax notoginseng. Ginsenoside Rh4 activates Pax, caspase 3, caspase 8, and caspase 9. Ginsenoside Rh4 also induces autophagy.

**Purity**: 98.40%

**Clinical Data**: No Development Reported

**Size**: 5 mg, 10 mg

---

Glycocholic acid  
**Cat. No.**: HY-N1423

**Bioactivity**: Glycocholic acid is a bile acid with anticancer activity, targeting against pump resistance-related and non-pump resistance-related pathways.

**Purity**: 97.0%

**Clinical Data**: No Development Reported

**Size**: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg

---

Gossypol (BL 193)  
**Cat. No.**: HY-13407

**Bioactivity**: Gossypol, a natural product isolated from cottonseeds and roots, binds to Bcl-xL protein and Bcl-2 protein with **Kᵢ** of 0.5-0.6 μM and 0.2-0.3 mM, respectively.

**Purity**: >98%

**Clinical Data**: Phase 3

**Size**: 100 mg, 200 mg, 500 mg

---

Gossypol acetic acid ((±)-Gossypol-acetic acid)  
**Cat. No.**: HY-17510

**Bioactivity**: Gossypol, a natural product isolated from cottonseeds and roots, binds to Bcl-xL protein and Bcl-2 protein with **Kᵢ** of 0.5-0.6 μM and 0.2-0.3 mM, respectively.

**Purity**: 99.42%

**Clinical Data**: Phase 3

**Size**: 10mM x 1mL in DMSO, 200 mg, 500 mg

---

Jaceosidin  
**Cat. No.**: HY-N0831

**Bioactivity**: Jaceosidin is a flavonoid isolated from *Artemisia vestita*, induces apoptosis in cancer cells, activates Bax and down-regulates Mcl-1 and c-FLIP expression. Jaceosidin exhibits anti-cancer and anti-inflammatory activities...

**Purity**: >98%

**Clinical Data**: No Development Reported

**Size**: 10mM x 1mL in DMSO, 1 mg, 5 mg, 10 mg, 25 mg

---

Maritoclax (Marinopyrrole A)  
**Cat. No.**: HY-15613

**Bioactivity**: Maritoclax (Marinopyrrole A) is a novel and specific **Mcl-1** inhibitor with an **IC₅₀** value of 10.1 μM, and shows >8 fold selectivity than BCL-xl (IC₅₀ > 80 μM).

**Purity**: 99.97%

**Clinical Data**: No Development Reported

**Size**: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

---

**www.MedChemExpress.com**
<table>
<thead>
<tr>
<th>Mcl1-IN-1</th>
<th>Cat. No.: HY-16669</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>Mcl1-IN-1 is an inhibitor of myeloid cell factor 1 (Mcl-1) (\text{(IC}_{50}\text{=2.4 \mu M)}).</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>96.64%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>No Development Reported</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Mcl1-IN-2</th>
<th>Cat. No.: HY-12826</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>Mcl1-IN-2 is an inhibitor of myeloid cell factor 1 (Mcl-1).</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>95.0%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>No Development Reported</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mcl1-IN-3</th>
<th>Cat. No.: HY-111468</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>Mcl1-IN-3 is an inhibitor of Mcl extracted from patent WO2015153959A2, compound example 57; has an IC(\text{50}) and K(\text{i}) of 0.67 and 0.13 \mu M, respectively.</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>&gt;98%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>No Development Reported</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>250 mg, 500 mg</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Mcl1-IN-4</th>
<th>Cat. No.: HY-111467</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>Mcl1-IN-4 is an inhibitor of Mcl with an IC(\text{50}) of 0.2 \mu M.</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>&gt;98%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>No Development Reported</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>250 mg, 500 mg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MIM1 (Inhibitor of Mcl-1)</th>
<th>Cat. No.: HY-16695</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>MIM-1 is an inhibitor of myeloid cell factor 1 (Mcl-1).</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>&gt;98%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>No Development Reported</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>5 mg, 10 mg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ML311</th>
<th>Cat. No.: HY-101778</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>ML311 is a potent and selective inhibitor of the Mcl-1/Bim interaction.</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>&gt;98%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>No Development Reported</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Navitoclax (ABT-263)</th>
<th>Cat. No.: HY-10087</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>Navitoclax (ABT-263) is a potent and oral Bcl-2 family protein inhibitor that binds to multiple anti-apoptotic Bcl-2 family proteins, such as Bcl-x(_L), Bcl-2 and Bcl-w, with a K(\text{i}) of less than 1 nM.</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>99.97%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>Phase 2</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Obatoclax (Obatoclax Mesylate; GX15-070)</th>
<th>Cat. No.: HY-10969</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>Obatoclax is an antagonist of the BCL-2 family proteins. It binds to BCL-2 with a K(\text{i}) of 220 nM.</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>99.20%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>Phase 3</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PUMA BH3</th>
<th>Cat. No.: HY-P1562</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>PUMA BH3 is a p53 upregulated modulator of apoptosis (PUMA) BH3 domain peptide, acts as a direct activator of Bak with a K(\text{d}) of 26 nM.</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>&gt;98%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>No Development Reported</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>1 mg, 5 mg, 10 mg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pyridoclax (MR-29072)</th>
<th>Cat. No.: HY-12527</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>Pyridoclax is a potential Mcl-1 inhibitor.</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>&gt;98%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>No Development Reported</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg</td>
</tr>
</tbody>
</table>
**S55746**
(BLC201)  
Cat. No.: HY-117288

Bioactivity: S55746 is an orally active, selective and potent BCL-2 inhibitor, with a $K_i$ of 1.3 nM.

Purity: 98.97%  
Clinical Data: No Development Reported  
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

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**S55746 hydrochloride**
(BLC201 (hydrochloride))  
Cat. No.: HY-117288A

Bioactivity: S55746 hydrochloride is a potent, orally active and selective BCL-2 inhibitor, with $K_i$ and $K_d$ of 1.3 nM, 520 nM and 3.9 nM, 186 nM for BCL-2 and BCL-XL, respectively. S55746 hydrochloride has antitumor activity.

Purity: >98%  
Clinical Data: No Development Reported  
Size: 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

---

**S63845**  
Cat. No.: HY-100741

Bioactivity: S63845 is a potent and selective myeloid cell leukemia 1 (MCL1) inhibitor with a $K_d$ of 0.19 nM for human MCL1.

Purity: 99.94%  
Clinical Data: No Development Reported  
Size: 10mM x 1mL in DMSO, 1 mg, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

---

**Sabutoclax**  
(BI-97C1)  
Cat. No.: HY-15191

Bioactivity: Sabutoclax is a potent and effective Bcl-2 Family (Bcl-2, Bcl-XL, Mcl-1, Bf-1) inhibitor with $IC_{50}$ of 0.32 μM, 0.31 μM, 0.20 μM, and 0.62 μM, respectively. Sabutoclax has antitumor activity.

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

---

**Thevetiaflavone**  
(Apigenin-5-methyl ether)  
Cat. No.: HY-N1157

Bioactivity: Thevetiaflavone could upregulate the expression of Bcl2 and downregulate that of Bax and caspase3.

Purity: 98.04%  
Clinical Data: No Development Reported  
Size: 5 mg

---

**TW-37**  
Cat. No.: HY-12020

Bioactivity: TW-37 is a potent Bcl-2 inhibitor with $K_i$ values of 260, 290 and 1110 nM for Mcl-1, Bcl-2 and Bcl-XL, respectively.

Purity: 98.50%  
Clinical Data: No Development Reported  
Size: 10mM x 1mL in DMSO, 10 mg, 50 mg

---

**UMI-77**  
Cat. No.: HY-18628

Bioactivity: UMI-77 is a selective Mcl-1 inhibitor, which shows high binding affinity to Mcl-1 ($IC_{50}$=0.31 μM). UMI-77 binds to the BH3 binding groove of Mcl-1 with $K_i$ of 490 nM, showing selectivity over other members of anti-apoptotic Bc...

Purity: 98.04%  
Clinical Data: No Development Reported  
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg

---

**Venetoclax**  
(GDC-0199; ABT-199)  
Cat. No.: HY-15531

Bioactivity: Venetoclax (GDC-0199; ABT-199) is a highly potent, selective and orally bioavailable Bcl-2 inhibitor with a $K_i$ of less than 0.01 nM.

Purity: 99.80%  
Clinical Data: Launched  
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg, 200 mg, 500 mg

---

**WEHI-539**  
Cat. No.: HY-15607

Bioactivity: WEHI-539 is a selective inhibitor of Bcl-xL with $IC_{50}$ of 1.1 nM.

Purity: >98%  
Clinical Data: No Development Reported  
Size: 5 mg, 10 mg, 50 mg, 100 mg
<table>
<thead>
<tr>
<th><strong>Bioactivity:</strong></th>
<th>WEHI-539 hydrochloride is a selective inhibitor of Bcl-(X_L) with an IC(_{50}) of 1.1 nM.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purity:</strong></td>
<td>97.85%</td>
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<tr>
<td><strong>Clinical Data:</strong></td>
<td>No Development Reported</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg</td>
</tr>
</tbody>
</table>
c-Myc

Myc

c-Myc is the master transcription factor for cell proliferation and is involved in numerous hematological and solid cancers.

Proto-oncogene c-Myc, encoding one of the most important transcription factors, plays a pivotal role in tumor initiation and progression. c-Myc regulates hundreds of disparate target genes that participate numerous biological effects, such as cell proliferation, apoptosis, differentiation, and stem cell self-renewal. c-Myc is one of the four factors used in reprogramming somatic cells to induce pluripotent stem (iPS) cells and is implicated in maintaining cancer stem-like cells (CSCs).

The transcription factor c-Myc is a key mediator of the Notch signaling–regulated T cell differentiation. In a well-established in vitro differentiation model of T lymphocytes from hematopoietic stem cells, Notch1 and 4 directly promotes c-Myc expression; dominant-negative (DN) c-Myc inhibits early T cell differentiation. Moreover, the c-Myc expression activated by Notch signaling increases the expression of survivin, an inhibitor of apoptosis (IAP) protein.

c-Myc gene, as a transcription factor of hTERT, is over expressed in a variety of tumors. c-Myc and hTERT expression in local recurrent gastric cancer tissues is much higher than in primary gastric cancer tissues at the protein and mRNA levels.
# c-Myc Inhibitors & Modulators

## 10058-F4

**Cat. No.: HY-12702**

**Bioactivity:** 10058-F4 is a **c-Myc** inhibitor that prevents c-Myc-Max dimerization and transactivation of c-Myc target gene expression.

**Purity:** 99.92%

**Clinical Data:** No Development Reported

**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg

## 10074-G5

**Cat. No.: HY-100996**

**Bioactivity:** 10074-G5 is an inhibitor of **c-Myc-Max** dimerization with an IC\textsubscript{50} of 146 μM.

**Purity:** 97.07%

**Clinical Data:** No Development Reported

**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

## KJ Pyr 9

**Cat. No.: HY-19735**

**Bioactivity:** KJ Pyr 9 is an inhibitor of MYC with a K\textsubscript{d} of 6.5 nM in vitro assay.

**Purity:** 99.25%

**Clinical Data:** No Development Reported

**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

## KSI-3716

**Cat. No.: HY-12703**

**Bioactivity:** KSI-3716 is a **c-Myc** inhibitor.

**Purity:** >98%

**Clinical Data:** No Development Reported

**Size:** 250 mg, 500 mg

## ML327

**Cat. No.: HY-103038**

**Bioactivity:** ML327 is a blocker of MYC which can also de-repress E-cadherin transcription and reverse Epithelial-to-Mesenchymal Transition (EMT).

**Purity:** 98.04%

**Clinical Data:** No Development Reported

**Size:** 10mM x 1mL in DMSO, 1 mg, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

## Mycro 3

**Cat. No.: HY-100669**

**Bioactivity:** Mycro 3 is potent and selective for **c-Myc** in whole cell assays.

**Purity:** 98.63%

**Clinical Data:** No Development Reported

**Size:** 10mM x 1mL in DMSO, 2 mg, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg
Caspase

Caspase is a family of cysteine proteases that play essential roles in apoptosis (programmed cell death), necrosis, and inflammation. There are two types of apoptotic caspases: initiator (apical) caspases and effector (executioner) caspases. Initiator caspases (e.g., CASP2, CASP8, CASP9, and CASP10) cleave inactive pro-forms of effector caspases, thereby activating them. Effector caspases (e.g., CASP3, CASP6, CASP7) in turn cleave other protein substrates within the cell, to trigger the apoptotic process. The initiation of this cascade reaction is regulated by caspase inhibitors. CASP4 and CASP5, which are overexpressed in some cases of vitiligo and associated autoimmune diseases caused by NALP1 variants, are not currently classified as initiator or effector in MeSH, because they are inflammatory enzymes that, in concert with CASP1, are involved in T-cell maturation.
## Caspase Inhibitors & Modulators

### 2-HBA
- **Bioactivity:** 2-HBA is a potent inducer of NAD(P)H:quinone acceptor oxidoreductase 1 (NQO1) which can also activate caspase-3 and caspase-10.
- **Purity:** 98.38%
- **Clinical Data:** No Development Reported
- **Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

### Ac-DEVD-CHO
- **Bioactivity:** Ac-DEVD-CHO is a specific Caspase-3 inhibitor with a $K_i$ value of 230 pM.
- **Purity:** 98.84%
- **Clinical Data:** No Development Reported
- **Size:** 1 mg, 5 mg

### Belnacasan (VX-765)
- **Bioactivity:** Belnacasan (VX-765) is an oral prodrug of VRT-043198, a potent and selective caspase-1 inhibitor with a $K_i$ of 0.8 nM.
- **Purity:** 99.99%
- **Clinical Data:** Phase 2
- **Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

### Biotin-VAD-FMK
- **Bioactivity:** Biotin-VAD-FMK is a cell permeable, irreversible biotin-labeled caspase inhibitor, used to identify active caspases in cell lysates.
- **Purity:** 98.0%
- **Clinical Data:** No Development Reported
- **Size:** 1 mg, 5 mg

### Chelidonic acid
- **Bioactivity:** Chelidonic acid is a component of Chelidonium majus L., used as a mild analgesic, an antimicrobial, an acental nervous system sedative. Chelidonic acid also shows anti-inflammatory activity. Chelidonic acid has potential to inhibit IL-6 production by blocking NF-κB and caspase-1.
- **Purity:** >98%
- **Clinical Data:** No Development Reported
- **Size:** 10mM x 1mL in DMSO, 100 mg

### Dehydrocorydaline (13-Methylpalmatine)
- **Bioactivity:** Dehydrocorydaline (13-Methylpalmatine) is an alkaloid isolated from traditional Chinese herb Corydalis yanhusuo W.T. Wang. Dehydrocorydaline regulates protein expression of Bax, Bcl-2, activates caspase-7, caspase-8, and inactivates PARP.
- **Purity:** >98%
- **Clinical Data:** No Development Reported
- **Size:** 5 mg, 10 mg, 50 mg

### Emricasan (PF 03491390; IDN-6556)
- **Bioactivity:** Emricasan (PF 03491390) is an irreversible pan-caspase inhibitor.
- **Purity:** 99.73%
- **Clinical Data:** Phase 2
- **Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

### Ginsenoside Rh2
- **Bioactivity:** Ginsenoside Rh2 is isolated from the root of Ginseng. Ginsenoside Rh2 induces the activation of caspase-8 and caspase-9. Ginsenoside Rh2 induces cancer cell apoptosis in a multi-path manner.
- **Purity:** 98.0%
- **Clinical Data:** No Development Reported
- **Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg

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2-HBA | Cat. No.: HY-103667
---|---
**Bioactivity:** 2-HBA is a potent inducer of NAD(P)H:quinone acceptor oxidoreductase 1 (NQO1) which can also activate caspase-3 and caspase-10.  
**Purity:** 98.38%  
**Clinical Data:** No Development Reported  
**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

Ac-DEVD-CHO | Cat. No.: HY-P1001
---|---
**Bioactivity:** Ac-DEVD-CHO is a specific Caspase-3 inhibitor with a $K_i$ value of 230 pM.  
**Purity:** 98.84%  
**Clinical Data:** No Development Reported  
**Size:** 1 mg, 5 mg

Belnacasan (VX-765) | Cat. No.: HY-13205
---|---
**Bioactivity:** Belnacasan (VX-765) is an oral prodrug of VRT-043198, a potent and selective caspase-1 inhibitor with a $K_i$ of 0.8 nM.  
**Purity:** 99.99%  
**Clinical Data:** Phase 2  
**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

Biotin-VAD-FMK | Cat. No.: HY-100894
---|---
**Bioactivity:** Biotin-VAD-FMK is a cell permeable, irreversible biotin-labeled caspase inhibitor, used to identify active caspases in cell lysates.  
**Purity:** 98.0%  
**Clinical Data:** No Development Reported  
**Size:** 1 mg, 5 mg

Chelidonic acid | Cat. No.: HY-W041489
---|---
**Bioactivity:** Chelidonic acid is a component of Chelidonium majus L., used as a mild analgesic, an antimicrobial, an acental nervous system sedative. Chelidonic acid also shows anti-inflammatory activity. Chelidonic acid has potential to inhibit IL-6 production by blocking NF-κB and caspase-1.  
**Purity:** >98%  
**Clinical Data:** No Development Reported  
**Size:** 10mM x 1mL in DMSO, 100 mg

Dehydrocorydaline (13-Methylpalmatine) | Cat. No.: HY-N0674
---|---
**Bioactivity:** Dehydrocorydaline (13-Methylpalmatine) is an alkaloid isolated from traditional Chinese herb Corydalis yanhusuo W.T. Wang. Dehydrocorydaline regulates protein expression of Bax, Bcl-2, activates caspase-7, caspase-8, and inactivates PARP.  
**Purity:** >98%  
**Clinical Data:** No Development Reported  
**Size:** 5 mg, 10 mg, 50 mg

Emricasan (PF 03491390; IDN-6556) | Cat. No.: HY-10396
---|---
**Bioactivity:** Emricasan (PF 03491390) is an irreversible pan-caspase inhibitor.  
**Purity:** 99.73%  
**Clinical Data:** Phase 2  
**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

Ginsenoside Rh2 (20(S)-Ginsenoside Rh2; 20(S)-Rh2; Ginsenoside-Rh2) | Cat. No.: HY-N0605
---|---
**Bioactivity:** Ginsenoside Rh2 is isolated from the root of Ginseng. Ginsenoside Rh2 induces the activation of caspase-8 and caspase-9. Ginsenoside Rh2 induces cancer cell apoptosis in a multi-path manner.  
**Purity:** 98.0%  
**Clinical Data:** No Development Reported  
**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg

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20 Tel: 609-228-6898 Fax: 609-228-5909 Email: sales@MedChemExpress.com
Ginsenoside Rh4  
**Cat. No.: HY-N0905**

**Bioactivity:** Ginsenoside Rh4 is a rare saponin obtained from Panax notoginseng. Ginsenoside Rh4 activates *Bax, caspase 3, caspase 8, and caspase 9*. Ginsenoside Rh4 also induces autophagy.

**Purity:** 98.40%

**Clinical Data:** No Development Reported

**Size:** 5 mg, 10 mg

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ML132  
**(NCGC 00185682)**  
**Cat. No.: HY-12412**

**Bioactivity:** ML132 (NCGC 00185682) is a potent and selective *caspase 1* inhibitor with an *IC*$_{50}$ of 0.316 nM.

**Purity:** >98%

**Clinical Data:** No Development Reported

**Size:** 250 mg, 500 mg

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PAC-1  
**(Procasapase activating compound 1)**  
**Cat. No.: HY-13523**

**Bioactivity:** PAC-1 is an activator of *procasapase-3* induces apoptosis in cancer cells with *EC*$_{50}$ of 2.08 μM.

**Purity:** 95.98%

**Clinical Data:** Phase 1

**Size:** 10mM x 1mL in DMSO, 10 mg, 50 mg

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Q-VD-OPh  
**(QVD-OPH; Quinoline-Val-Asp-Difluorophenoxymethylketone)**  
**Cat. No.: HY-12305**

**Bioactivity:** Q-VD-OPh is a irreversible *pan-caspase* inhibitor with potent antiapoptotic properties; inhibits caspase 7 with *IC*$_{50}$ of 48 nM and 25-400 nM for other caspases including caspase 1, 3, 8, 9, 10, and 12. Q-VD-OPh is able to cross the blood-brain barrier. 99.26%

**Clinical Data:** No Development Reported

**Size:** 10mM x 1mL in DMSO, 1 mg, 5 mg, 10 mg, 25 mg, 50 mg

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Taurchenodeoxycholic acid  
**(12-Deoxycholytaurine)**  
**Cat. No.: HY-N2027**

**Bioactivity:** Taurchenodeoxycholic acid is one of the main bioactive substances of animals’ bile acid.

**Purity:** 99.80%

**Clinical Data:** Launched

**Size:** 10mM x 1mL in DMSO, 50 mg

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Tauroursodeoxycholate  
**(TUDCA; UR 906; Taurolite)**  
**Cat. No.: HY-19696**

**Bioactivity:** Tauroursodeoxycholate is an endoplasmic reticulum (ER) stress inhibitor. Tauroursodeoxycholate significantly reduces expression of apoptosis molecules, such as *caspase-3* and *caspase-12*. Tauroursodeoxycholate also inhibits ERK.

**Purity:** >98%

**Clinical Data:** No Development Reported

**Size:** 50 mg

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Tauroursodeoxycholate Sodium  
**(Sodium tauroursodeoxycholate; Tauroursodeoxycholic acid sodium salt)**  
**Cat. No.: HY-19696A**

**Bioactivity:** Tauroursodeoxycholate Sodium is an amphiphilic bile acid that helps with liver and gallbladder issues.

**Purity:** 97.07%

**Clinical Data:** Launched

**Size:** 10mM x 1mL in Water, 100 mg, 500 mg

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Thevetiaflavone  
**(Apigenin-5-methyl ether)**  
**Cat. No.: HY-N1157**

**Bioactivity:** Thevetiaflavone could upregulate the expression of *Bcl2* and downregulate that of *Bax* and *caspase 3*.

**Purity:** >98%

**Clinical Data:** No Development Reported

**Size:** 5 mg

---

Z-DEVD-FMK  
**(Caspase-3 Inhibitor)**  
**Cat. No.: HY-12466**

**Bioactivity:** Z-DEVD-FMK is a specific and irreversible *caspase-3* inhibitor with *IC*$_{50}$ of 18 μM.

**Purity:** 98.0%

**Clinical Data:** No Development Reported

**Size:** 10mM x 1mL in DMSO, 1 mg, 5 mg, 10 mg

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Z-IETD-FMK  
**(Z-IETD(OMe)TD(OMe)-FMK)**  
**Cat. No.: HY-101297**

**Bioactivity:** Z-IETD-FMK is a selective and cell permeable *caspase 8* inhibitor.

**Purity:** 98.0%

**Clinical Data:** No Development Reported

**Size:** 10mM x 1mL in DMSO, 1 mg, 5 mg
### Z-VAD(OMe)-FMK

(Z-Val-Ala-Asp(OMe)-FMK)  

**Cat. No.:** HY-16658  

<table>
<thead>
<tr>
<th><strong>Bioactivity</strong></th>
<th>Z-VAD(OMe)-FMK is a cell-permeable and irreversible pan-caspase inhibitor.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purity</strong></td>
<td>98.0%</td>
</tr>
<tr>
<td><strong>Clinical Data</strong></td>
<td>No Development Reported</td>
</tr>
<tr>
<td><strong>Size</strong></td>
<td>10mM x 1mL in DMSO, 1 mg, 5 mg, 10 mg</td>
</tr>
</tbody>
</table>

Tel: 609-228-6898  Fax: 609-228-5909  Email: sales@MedChemExpress.com
DAPK (Death-associated protein kinase) is the founding member of a newly classified family of Ser/Thr kinases, whose members not only possess significant homology in their catalytic domains, but also share cell death-associated functions. The realization that DAPk is a tumor suppressor gene, whose expression is lost in multiple tumor types, has spurred a flurry of interest in the kinase family and produced an impressive body of literature concerning its function, regulation, and connection to disease. The DAPk family has been linked to several cell death-related signaling pathways, and functions other than cell death have also been proposed.
## DAPK Inhibitors & Modulators

### TC-DAPK 6
(DAPK inhibitor)  
**Cat. No.:** HY-15513

<table>
<thead>
<tr>
<th><strong>Bioactivity</strong></th>
<th>TC-DAPK 6 is a potent, ATP-competitive, and highly selective DAPK inhibitor (<em>IC</em>&lt;sub&gt;50&lt;/sub&gt; = 69 and 225 nM against DAPK1 and DAPK3, respectively, with 10 μM ATP).</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purity:</strong></td>
<td>95.0%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>No Development Reported</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>10mM x 1mL in DMSO, 10 mg, 50 mg</td>
</tr>
</tbody>
</table>

Phone: 609-228-6898  Fax: 609-228-5909  Email: sales@MedChemExpress.com
Ferroptosis is a non-apoptotic form of regulated cell death. It is distinct from other regulated cell death phenotypes, such as apoptosis and necroptosis. Ferroptosis is characterized by extensive lipid peroxidation, which can be suppressed by iron chelators or lipophilic antioxidants. Mechanistically, Ferroptosis inducers are divided into two classes: (1) inhibitors of cystine import via system x_c^- (e.g., Erastin), which subsequently causes depletion of glutathione (GSH), and (2) covalent inhibitors (e.g., (1S, 3R)-RSL3) of glutathione peroxidase 4 (GPX4). Since GPX4 reduces lipid hydroperoxides using GSH as a co-substrate, both compound classes ultimately result in loss of GPX4 activity, followed by elevated levels of lipid reactive oxygen species (ROS) and consequent cell death.

Ferroptosis is an iron- and ROS-dependent form of regulated cell death (RCD). Misregulated Ferroptosis has been implicated in multiple physiological and pathological processes, including cancer cell death, neurotoxicity, neurodegenerative diseases, acute renal failure, drug-induced hepatotoxicity, hepatic and heart ischemia/reperfusion injury, and T-cell immunity.
## Ferroptosis Inhibitors & Modulators

<table>
<thead>
<tr>
<th>Ferroptosis Inhibitors &amp; Modulators</th>
<th>Bioactivity</th>
<th>Purity</th>
<th>Clinical Data</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CIL56</strong></td>
<td>CIL56 is a potent and selective ferroptosis inducer. Ferroptosis is an iron-dependent form of regulated cell death (RCD).</td>
<td>99.02%</td>
<td>No Development Reported</td>
<td>10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg</td>
</tr>
<tr>
<td><strong>Erastin</strong></td>
<td>Erastin is a ferroptosis activator.</td>
<td>99.54%</td>
<td>No Development Reported</td>
<td>10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg, 200 mg</td>
</tr>
<tr>
<td><strong>Ferrostatin-1</strong></td>
<td>Ferrostatin-1 is a potent inhibitor of ferroptosis with an EC50 of 60 nM.</td>
<td>99.72%</td>
<td>No Development Reported</td>
<td>10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg</td>
</tr>
<tr>
<td><strong>FIN56</strong></td>
<td>FIN56 is a specific inducer of ferroptosis.</td>
<td>98.03%</td>
<td>No Development Reported</td>
<td>10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg</td>
</tr>
<tr>
<td><strong>Liproxstatin-1</strong></td>
<td>Liproxstatin-1 is a potent ferroptosis inhibitor, with an IC50 of approximately 38 nM.</td>
<td>98.38%</td>
<td>No Development Reported</td>
<td>10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg</td>
</tr>
</tbody>
</table>
IAP (Inhibitors of Apoptosis) is a family of functionally and structurally related proteins, which serve as endogenous inhibitors of programmed cell death (apoptosis). A common feature of all IAPs is the presence of a BIR in one to three copies. The human IAP family consists of 8 members, and IAP homologs have been identified in numerous organisms. The members of the IAPs included IAPs, Cp-IAP, Op-IAP, XIAP, c-IAP1, C-IAP2, NAIP, Livin and Survivin. The best characterized IAP is XIAP, which binds caspase-9, caspase-3 and caspase 7, thereby inhibiting their activation and preventing apoptosis. Also cIAP1 and cIAP2 have been shown to bind caspases, although how the IAPs inhibit apoptosis mechanistically at the molecular level is not completely understood.
# IAP Inhibitors & Modulators

<table>
<thead>
<tr>
<th><strong>ASTX660</strong></th>
<th>Cat. No.: HY-109565</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>ASTX660 is an orally bioavailable dual antagonist of cellular inhibitor of apoptosis protein (cIAP) and X-linked inhibitor of apoptosis protein (XIAP).</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>98.79%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>Phase 2</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>10mM x 1mL in DMSO, 1 mg, 5 mg, 10 mg, 25 mg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>AZD5582</strong></th>
<th>Cat. No.: HY-12600</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>AZD5582 is an IAP antagonist which binds potently to the BIR3 domains of cIAP1, cIAP2, and XIAP with IC\text{50} of 15, 21, and 15 nM, respectively.</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>98.13%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>No Development Reported</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Birinapant</strong> (TL32711)</th>
<th>Cat. No.: HY-16591</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>Birinapant, a bivalent Smac mimic, is a potent antagonist for XIAP and cIAP1 with IC\text{50} of 45 nM and less than 1 nM, respectively.</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>99.36%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>Phase 2</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>BV6</strong></th>
<th>Cat. No.: HY-16701</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>BV6 is an antagonist of cIAP1 and XIAP, members of the inhibitors of apoptosis (IAP) family.</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>99.25%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>No Development Reported</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>CUDC-427</strong> (GDC-0917)</th>
<th>Cat. No.: HY-15835</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>CUDC-427 is a potent second-generation pan-selective IAP antagonist, used for treatment of various cancers.</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>99.60%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>Phase 1</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Embelin</strong> (Embelic acid; Emberine; NSC 91874)</th>
<th>Cat. No.: HY-17473</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>Embelin is a cell-permeable benzoquinone compound that exhibits antitumor properties. Specifically antagonizes XIAP-mediated inhibition of caspase-9 activation by directly targeting the Smac and caspase-9 binding domain BIR3 (IC50 = 4.1 uM in a competitive binding assay with Smac peptide), IC50...</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>98.02%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>Launched</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>10mM x 1mL in DMSO, 10 mg, 50 mg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>GDC-0152</strong></th>
<th>Cat. No.: HY-13638</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>GDC-0152 is a potent inhibitor of IAPs which binds to the XIAP BIR3 domain, the BIR domain of ML-IAP, and the BIR3 domains of cIAP1 and cIAP2 with IC\text{50} values of 28, 14, 17, and 43 nM, respectively.</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>98.73%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>Phase 1</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>10mM x 1mL in DMSO, 10 mg, 50 mg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>LCL161</strong></th>
<th>Cat. No.: HY-15518</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>LCL161 is a IAP inhibitor which inhibits XIAP in HEK293 cell and cIAP1 in MDA-MB-231 cell with IC\text{50} of 35 and 0.4 nM, respectively.</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>99.17%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>Phase 2</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>MX69</strong></th>
<th>Cat. No.: HY-100892</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>MX69 is an inhibitor of MDM2/XIAP, used for cancer treatment.</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>98.59%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>No Development Reported</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>10mM x 1mL in DMSO, 1 mg, 5 mg, 10 mg, 50 mg, 100 mg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>SM-164</strong></th>
<th>Cat. No.: HY-15989</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>SM-164 is a cell-permeable Smac mimetic compound. SM-164 binds to XIAP protein containing both the BIR2 and BIR3 domains with an IC\text{50} value of 1.39 nM and functions as an extremely potent antagonist of XIAP.</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>98.0%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>No Development Reported</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>5 mg, 10 mg, 50 mg, 100 mg</td>
</tr>
<tr>
<td>SM-164 Hydrochloride</td>
<td>Cat. No.: HY-15989A</td>
</tr>
<tr>
<td>----------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>SM-164 Hydrochloride is a cell-permeable Smac mimetic compound. SM-164 binds to XIAP protein containing both the BIR2 and BIR3 domains with an IC&lt;sub&gt;50&lt;/sub&gt; value of 1.39 nM and functions as an extremely potent antagonist of XIAP.</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>98.84%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>No Development Reported</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>10mM x 1mL in Water, 5 mg, 10 mg, 50 mg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UC-112</th>
<th>Cat. No.: HY-12842</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>UC-112 is a novel potent IAP(Inhibitor of apoptosis) inhibitor; potently inhibit cell growth in two human melanoma (A375 and M14) and two human prostate (PC-3 and DU145) cancer cell lines(IC50=0.7-3.4 uM).</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>95.0%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>No Development Reported</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>10 mg, 50 mg</td>
</tr>
</tbody>
</table>
The p53 tumor suppressor is a principal mediator of growth arrest, senescence, and apoptosis in response to a broad array of cellular damage. p53 is a short-lived protein that is maintained at low, often undetectable, levels in normal cells. Under stress conditions, the p53 protein accumulates in the cell, binds in its tetrameric form to p53-response elements and induces the transcription of various genes.

MDM-2 is transcriptionally activated by p53 and MDM-2, in turn, inhibits p53 activity in several ways. MDM-2 binds to the p53 transactivation domain and thereby inhibits p53-mediated transactivation. MDM-2 also contains a signal sequence that is similar to the nuclear export signal of various viral proteins and, after binding to p53, it induces its nuclear export. As p53 is a transcription factor, it needs to be in the nucleus to be able to access the DNA; its transport to the cytoplasm by MDM-2 prevents this. Finally, MDM-2 is a ubiquitin ligase, so is able to target p53 for degradation by the proteasome. In many tumors p53 is inactivated by the overexpression of the negative regulators MDM2 and MDM4 or by the loss of activity of the MDM2 inhibitor ARF. The pathway can be reactivated in these tumors by small molecules that inhibit the interaction of MDM2 and/or MDM4 with p53. Such molecules are now in clinical trials.
MDM-2/p53 Inhibitors & Modulators

AM-8735

Cat. No.: HY-12734

Bioactivity: AM-8735 is a potent and selective MDM2 inhibitor with an IC₅₀ of 25 nM.

Purity: >98%

Clinical Data: No Development Reported

Size: 250 mg, 500 mg

AMG 232

Cat. No.: HY-12296

Bioactivity: AMG 232 is a potent, selective and orally available inhibitor of p53-MDM2 interaction, with an IC₅₀ of 0.6 nM. AMG 232 binds to MDM2 with a Kᵦ of 0.045 nM.

Purity: 99.73%

Clinical Data: Phase 2

Size: 5 mg, 10 mg, 50 mg, 100 mg

BH3I-1

(BHI1; BH 3I1)

Cat. No.: HY-100383

Bioactivity: BH3I-1 is a Bcl-2 family antagonist, which inhibits the binding of the Bak BH3 peptide to Bcl-xL with a Kᵦ of 2.4±0.2 μM in FP assay. BH3I-1 has a Kᵦ of 5.3 μM against the p53/MDM2 pair.

Purity: 98.0%

Clinical Data: No Development Reported

Size: 10mM x 1mL in DMSO, 2 mg, 5 mg, 10 mg, 25 mg, 50 mg

CBL0137 hydrochloride

(Curarixin-137 hydrochloride; CBL-C137 hydrochloride)

Cat. No.: HY-18935A

Bioactivity: CBL0137 hydrochloride is an inhibitor of the histone chaperone. FACT. CBL0137 hydrochloride can also activate p53 and inhibits NF-kB with EC₅₀ of 0.37 and 0.47 μM, respectively.

Purity: 98.25%

Clinical Data: No Development Reported

Size: 10mM x 1mL in DMSO, 2 mg, 5 mg, 10 mg, 25 mg, 50 mg

COTI-2

Cat. No.: HY-19896

Bioactivity: COTI-2 is a small molecule candidate anti-cancer drug which can convert mutant p53 to wild-type conformation.

Purity: 99.40%

Clinical Data: No Development Reported

Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

CTX1

Cat. No.: HY-U00442

Bioactivity: CTX1 is a novel small molecule p53 activator.

Purity: 96.0%

Clinical Data: No Development Reported

Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg

DPBQ

Cat. No.: HY-U00441

Bioactivity: DPBQ is a p53 activator.

Purity: >98%

Clinical Data: No Development Reported

Size: 5 mg, 10 mg, 25 mg

Idasanutilin

(RG7388)

Cat. No.: HY-15676

Bioactivity: Idasanutilin (RG7388) is a potent and selective MDM2 antagonist, inhibiting p53-MDM2 binding, with an IC₅₀ of 6 nM.

Purity: 99.97%

Clinical Data: Phase 3

Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

Inauhzin

(INZ)

Cat. No.: HY-15869

Bioactivity: Inauhzin is a dual SirT1/IMPDH2 inhibitor, and acts as an activator p53, used in the research of cancer.

Purity: 98.91%

Clinical Data: No Development Reported

Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

Keveitin hydrochloride

(4-Isothioureidobutyronitrile hydrochloride ...)

Cat. No.: HY-16271

Bioactivity: Keveitin hydrochloride is a small molecule and activator of the tumor suppressor protein p53, with potential antineoplastic activity. Targetetp53 in vitro: Keveitin activates p53 which in turn induces the expressions of p21 and PUMA (p53 up-regulated modulator of apoptosis), thereby...

Purity: 98.0%

Clinical Data: Phase 2

Size: 10mM x 1mL in DMSO, 10 mg, 50 mg, 100 mg
MI-773  
**Cat. No.: HY-17493**  
**Bioactivity:** MI-773 is a new small molecule inhibitor of the MDM2-p53 interaction, binds to MDM2 with high affinity (Kᵢ=0.88 nM) and blocks the p53-MDM2 interaction.

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

Milademetan (DS-3032)  
**Cat. No.: HY-101266**  
**Bioactivity:** Milademetan is a specific MDM2 inhibitor, a pharmaceutical composition for use in treating acute myeloid leukemia (AML).

**Purity:** 92.0%  
**Clinical Data:** No Development Reported  
**Size:** 10mM x 1mL in DMSO, 1 mg, 5 mg, 10 mg

MX69  
**Cat. No.: HY-100892**  
**Bioactivity:** MX69 is an inhibitor of MDM2/XIAP, used for cancer treatment.

**Purity:** 98.59%  
**Clinical Data:** No Development Reported  
**Size:** 10mM x 1mL in DMSO, 1 mg, 5 mg, 10 mg, 50 mg, 100 mg

NSC59984  
**Cat. No.: HY-19726**  
**Bioactivity:** NSC59984 induces mutant p53 protein degradation via MDM2 and the ubiquitin-proteasome pathway. The EC50 of NSC59984 in most cancer cells is significantly lower than those of normal cells, with EC50 of 8.38 μM for p53-null HCT116 cells. IC50 value: 8.38 μM (EC50, for p53-null HCT116 cells) Target: p53...

**Purity:** 99.76%  
**Clinical Data:** No Development Reported  
**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

Nutlin 3  
**Cat. No.: HY-50696**  
**Bioactivity:** Nutlin 3 is a commercial available p53-MDM2 inhibitor, with Kᵢ of 90 nM.

**Purity:** 98.32%  
**Clinical Data:** No Development Reported  
**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg

Nutlin 3a  
**Cat. No.: HY-10029**  
**Bioactivity:** Nutlin 3a is an active enantiomer of Nutlin-3, acts as a murine double minute (MDM2) antagonist that inhibits MDM2-p53 interactions and stabilizes the p53 protein, and thereby induces cell cycle arrest and apoptosis.

**Purity:** 98.11%  
**Clinical Data:** No Development Reported  
**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg

Nutlin 3b  
**Cat. No.: HY-15335**  
**Bioactivity:** Nutlin-3b is a p53/MDM2 inhibitor with an IC₅₀ of 13.6 μM. Nutlin-3b is 150 times less potent in binding to MDM2 than Nutlin-3a [1].

**Purity:** 96.32%  
**Clinical Data:** No Development Reported  
**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg

NVP-CGM097  
**Cat. No.: HY-15954**  
**Bioactivity:** NVP-CGM097 is a potent and selective MDM2 inhibitor with IC₅₀ of 1.7±0.1 nM for hMDM2.

**Purity:** 98.32%  
**Clinical Data:** Phase 1  
**Size:** 10mM x 1mL in DMSO, 2 mg, 5 mg, 10 mg, 50 mg, 100 mg

NVP-CGM097 sulfate  
**Cat. No.: HY-15954B**  
**Bioactivity:** NVP-CGM097 sulfate is a potent and selective MDM2 inhibitor with IC₅₀ of 1.7±0.1 nM for hMDM2.

**Purity:** 98.83%  
**Clinical Data:** Phase 1  
**Size:** 10mM x 1mL in Water, 2 mg, 5 mg, 10 mg, 50 mg, 100 mg
p53 and MDM2 proteins-interaction-inhibitor chiral
Cat. No.: HY-70027
Bioactivity: p53 and MDM2 proteins-interaction-inhibitor (chiral) (Compound 32) is an inhibitor of the interaction between p53 and MDM2 proteins.
Purity: >98%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 10 mg, 100 mg

p53 and MDM2 proteins-interaction-inhibitor racemic
Cat. No.: HY-70028
Bioactivity: p53 and MDM2 proteins-interaction-inhibitor (racemic) (Compound 2j) is an inhibitor of the interaction between p53 and MDM2 proteins.
Purity: >98%
Clinical Data: No Development Reported
Size: 10 mg, 100 mg

PhiKan 083 hydrochloride
Cat. No.: HY-108637A
Bioactivity: PhiKan 083 hydrochloride is a carbazole derivative, which binds to the surface cavity and stabilizes Y220C (a p53 mutant), with a $K_d$ of 167 μM $[^1]$, and a relative binding affinity ($K_d$) of 150 μM in Ln229 cells $[^3]$.
Purity: 99.0%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg

PhiKan 083
Cat. No.: HY-108637
Bioactivity: PhiKan 083 is a carbazole derivative, which binds to the surface cavity and stabilizes Y220C (a p53 mutant), with a $K_d$ of 167 μM $[^1]$, and a relative binding affinity ($K_d$) of 150 μM in Ln229 cells $[^3]$.
Purity: >98%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg

Pifithrin-α hydrobromide
(Pifithrin hydrobromide; PFTα hydrobromide)
Cat. No.: HY-15484
Bioactivity: Pifithrin-α hydrobromide is a p53 inhibitor which blocks its transcriptional activity and prevents cells from apoptosis.
Purity: 98.28%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg

Pifithrin-β
(PFT β)
Cat. No.: HY-16702
Bioactivity: Pifithrin-β is a potent p53 inhibitor with an $IC_{50}$ of 23 μM.
Purity: >98%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 50 mg

Pifithrin-μ
(PFTμ; 2-Phenylethynesulfonamide)
Cat. No.: HY-10940
Bioactivity: Pifithrin-μ is an inhibitor of p53 and HSP70, with antitumor and neuroprotective activity.
Purity: 98.31%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 10 mg

PK11007
Cat. No.: HY-U00447
Bioactivity: PK11007 is a p53 targeting compound, has anti-tumor activities through activation of unstable p53.
Purity: 99.74%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg
PRIMA-1 (NSC-281668) Cat. No.: HY-19980A

Bioactivity: PRIMA-1 (NSC-281668) is a mutant p53 reactivator, restores the sensitivity of TP53 mutant-type thyroid cancer cells to the histone methylation inhibitor 3-Deazaneplanocin A.

Purity: 98.0%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg, 200 mg

Puromycin aminonucleoside (NSC 3056) Cat. No.: HY-15695

Bioactivity: Puromycin aminonucleoside (NSC 3056) is the aminonucleoside portion of the antibiotic puromycin, and a puromycin analog which does not inhibit protein synthesis or induce apoptosis.

Purity: 98.31%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg, 500 mg, 1 g

RG7112 (RO5043337) Cat. No.: HY-10959

Bioactivity: RG7112 is the first clinical and orally available MDM-2/p53 inhibitor designed to occupy the p53-binding pocket of MDM2, with the $K_d$ value of 11 nM.

Purity: 99.49%
Clinical Data: Phase 1
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

RO8994 Cat. No.: HY-16999

Bioactivity: RO8994 is a highly potent and selective series of spiroindolinone small-molecule MDM2 inhibitor, with IC50 of 5 nM (HTRF binding assays) and 20 nM (MTT proliferation assays). IC50 value: 5 nM (in HTRF binding assays), 20 nM (in MTT proliferation assays) Target: MDM2 in vitro: RO8994 represents...

Purity: 99.38%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

Serdemetan (JNJ-26854165) Cat. No.: HY-12025

Bioactivity: Serdemetan (JNJ-26854165) acts as a HDM2 ubiquitin ligase antagonist and also induces early apoptosis in p53 wild-type cells, inhibits cellular proliferation followed by delayed apoptosis in the absence of functional p53. IC50 value: HDM2 ubiquitin ligase Target: in vitro: JNJ 26854165 is a novel...

Purity: 98.32%
Clinical Data: Phase 1
Size: 10mM x 1mL in DMSO, 10 mg, 50 mg, 100 mg

Siremadlin (NVP-HDM201; HDM201) Cat. No.: HY-18658

Bioactivity: Siremadlin (NVP-HDM201) is a potent and highly specific MDM-2/p53 inhibitor currently under phase I clinical trial.

Purity: 99.19%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 1 mg, 5 mg, 10 mg, 50 mg, 100 mg
SJ-172550

Bioactivity: SJ-172550 is a small molecule inhibitor of MDMX; competes for the wild type p53 peptide binding to MDMX with an EC$_{50}$ of 5 μM.
Purity: 98.0%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 10 mg, 50 mg

Solasodine (Purapuridine; Solancarpidine; Solasodin)

Bioactivity: Solasodine (Purapuridine) is a poisonous alkaloid chemical compound that occurs in plants of the Solanaceae family. Solasodine showed selective cytotoxicity against cervical cancer cell line (HeLa) and human myeloid leukemia cell line (U937). IC$_50$ Value: 12.17 ± 3.3 uM (Hela cell line)[1] Target:
Purity: 98.0%
Clinical Data: No Development Reported
Size: 100 mg

Tenovin 6 Hydrochloride (Tenovin 2)

Bioactivity: Tenovin-6 Hydrochloride is a water soluble inhibitor of SIRT1 and SIRT2, slightly inhibits HDAC8, and is also a potent activator of p53, with IC$_{50}$ of 21 μM, 10 μM, 67 μM for Sirt1, Sirt2, and Sirt3, respectively.
Purity: 98.0%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 2 mg, 5 mg, 10 mg, 50 mg, 100 mg

Tenovin-1

Bioactivity: Tenovin-1 is an inhibitor of sirtuin 1 and sirtuin 2, an activator of p53 and may have potential in the management of cancer.
Purity: 99.39%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 10 mg, 50 mg, 100 mg

Tenovin-3

Bioactivity: Tenovin-3 is able to increase p53 levels, determined in MCF-7 cells treated for 6 hr at 10 μM. Target: p53 in vitro: Tenovins inhibit the activities of human Sirt1 and Sirt2, two members of the NAD+-dependent class III histone deacetylases that also belong to the sirtuin family.[1]
Purity: 99.72%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 1 mg, 5 mg, 10 mg, 25 mg, 50 mg

Tenovin-6

Bioactivity: Tenovin-6 is a water soluble inhibitor of SIRT1 and SIRT2, slightly inhibits HDAC8, and is also a potent activator of p53, with IC$_{50}$ of 21 μM, 10 μM, and 67 μM for SirT1, SirT2, and SirT3, respectively.
Purity: 98.24%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 2 mg, 5 mg, 10 mg, 50 mg, 100 mg

WR-1065 dihydrochloride

Bioactivity: WR-1065 dihydrochloride can protect normal tissues from the toxic effects of certain cancer drugs and activate p53 through a JNK-dependent signaling pathway.
Purity: 98.0%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg

YH239-EE

Bioactivity: YH239-EE, ethyl ester of the free carboxylic acid compound YH239, is a potent p53-MDM2 antagonizing and apoptosis-inducing agent IC$_50$ value: Target: MDM2/p53 YH239-EE inhibits the growth of OCI-AML-3 cells with wild type p53 by inhibiting the p53-MDM2 interaction. YH239-EE induces cell...
Purity: 99.25%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 10 mg, 50 mg
PKD (Protein kinase D) is an evolutionarily conserved protein kinase family with structural, enzymological, and regulatory properties different from the PKC family members. Signaling through PKD is induced by a remarkable number of stimuli, including G-protein-coupled receptor agonists and polypeptide growth factors. PKD family of serine/threonine protein kinases has three members: PKD1, PKD2, PKD3. PKD1, the most studied member of the family, is increasingly implicated in the regulation of a complex array of fundamental biological processes, including signal transduction, cell proliferation and differentiation, membrane trafficking, secretion, immune regulation, cardiac hypertrophy and contraction, angiogenesis, and cancer. PKD mediates such a diverse array of normal and abnormal biological functions via dynamic changes in its spatial and temporal localization, combined with its distinct substrate specificity.
PKD Inhibitors & Modulators

1-NM-PP1 (PP1 Analog II)  
Cat. No.: HY-13942

Bioactivity: 1-NM-PP1 is a cell permeable protein kinase D (PKD) inhibitor with an IC₅₀ of 0.398 μM.

Purity: 98.33%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg

CID 2011756  
Cat. No.: HY-13454

Bioactivity: CID 2011756 is an ATP competitive PKD inhibitor, with an IC₅₀ of 3.2 μM for PKD1 in cell free assay, and also shows cellular pan-PKD inhibitory activity against PKD2 and PKD3 (IC₅₀ 0.6 and 0.7 μM, respectively). CID 2011756 also has antitu...

Purity: 95.52%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg

CID755673  
Cat. No.: HY-12239

Bioactivity: CID755673 is a potent and selective PKD1 inhibitor with an IC₅₀ of 182 nM.

Purity: 98.98%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg

CRT0066101 dihydrochloride  
Cat. No.: HY-15698A

Bioactivity: CRT0066101 dihydrochloride is a potent and specific PKD inhibitor with IC₅₀ values of 1, 2.5 and 2 nM for PKD1, 2, and 3 respectively.

Purity: 98.94%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg

kb NB 142-70  
Cat. No.: HY-15528

Bioactivity: kb NB 142-70 is a potent PKD inhibitor, with IC₅₀ of 28.3, 58.7 and 53.2 nM for PKD1, PKD2, and PKD3, respectively. kb NB 142-70 also has antitumor activity.

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

kb-NB77-78  
Cat. No.: HY-16698

Bioactivity: kb-NB77-78 is an analogue of CID797718, but shows no PKD inhibitory activity [1].

Purity: >98%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg

www.MedChemExpress.com
Receptor interacting protein 2 (RIP2), a serine/threonine kinase, is an adaptor molecule of NOD1 and NOD2, and genetic variation in this receptor is known to be associated with the severity of allergic asthma in children.

Receptor interacting protein kinase 2 (RIPK2) is critical for NOD-mediated NF-κB activation and cytokine production. WEHI-345, a selective RIPK2 kinase inhibitor, which delays RIPK2 ubiquitylation and NF-κB activation downstream of NOD engagement.

Receptor interacting protein kinase 3 (RIPK3) is a cytosolic master regulator of necroptosis. RIPK3 has an active serine/threonine kinase domain at the N-terminus, and a unique protein-protein interaction domain called the RIP homotypic interaction motif (RHIM) at the C-terminus. Both kinase activity and RHIM are indispensable for necroptosis. RIPK3 interacts with other RHIM-containing proteins such as RIPK1, Toll/interleukin-1 (IL-1) receptor domain-containing adaptor protein inducing interferon β (TRIF) or DNA-dependent activator of interferon regulatory factor (DAI). RIPK3 induces necroptosis, a type of regulated necrosis, through its kinase domain and RHIM.
RIP kinase Inhibitors & Modulators

**GSK'481** (GSK481)  
Cat. No.: HY-100131

Bioactivity: GSK'481 can inhibit RIP1 WT S166 phosphorylation in human vs mouse plasmids overexpressed in HEK293T cells.

Purity: 98.0%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 2 mg, 5 mg, 10 mg, 50 mg, 100 mg

**GSK'872** (GSK872)  
Cat. No.: HY-101872

Bioactivity: GSK'872 is a RIPK3 inhibitor, which binds RIP3 kinase domain with an IC_{50} of 1.8 nM, and inhibits kinase activity with an IC_{50} of 1.1 nM.

Purity: 99.65%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

**GSK2982772**  
Cat. No.: HY-101760

Bioactivity: GSK2982772 is a potent and ATP competitive RIP1 inhibitor with an IC_{50} of 16 nM.

Purity: 98.0%
Clinical Data: Phase 2
Size: 10mM x 1mL in DMSO, 1 mg, 5 mg, 10 mg, 50 mg, 100 mg

**GSK583**  
Cat. No.: HY-100339

Bioactivity: GSK583 is a highly potent and selective inhibitor of RIP2 Kinase, with IC_{50} of 5 nM.

Purity: 98.07%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 2 mg, 5 mg, 10 mg, 50 mg, 100 mg

**HS-1371**  
Cat. No.: HY-114349

Bioactivity: HS-1371 is a potent and ATP-competitive receptor-interacting protein kinase 3 (RIP3) inhibitor with an IC_{50} of 20.8nM.[1]

Purity: 98.49%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

**Necrostatin-1** (Nec-1)  
Cat. No.: HY-15760

Bioactivity: Necrostatin-1 (Nec-1) is a potent, selective and cell-permeable necroptosis inhibitor with an EC_{50} of 490 nM in Jurkat cells. It acts by inhibiting the death domain kinase RIP (RIP1) in the necroptosis pathway.

Purity: 99.20%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 10 mg, 50 mg, 100 mg

**RIP2 kinase inhibitor 1**  
Cat. No.: HY-19764

Bioactivity: RIP2 kinase inhibitor 1 is a receptor interacting protein-2 (RIP2) kinase inhibitor extracted from patent WO/2014043446 A1, compound example 1.

Purity: 98.11%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 1 mg, 5 mg, 10 mg, 50 mg, 100 mg

**RIP2 kinase inhibitor 2**  
Cat. No.: HY-19761

Bioactivity: RIP2 kinase inhibitor 2 is a receptor interacting protein-2 (RIP2) kinase inhibitor extracted from patent WO/2014043437 A1, compound example 9.

Purity: 99.64%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 1 mg, 5 mg, 10 mg, 50 mg, 100 mg

**RIPA-56**  
Cat. No.: HY-101032

Bioactivity: RIPA-56 is a highly potent, selective, and metabolically stable inhibitor of receptor-interacting protein 1 (RIP1) with an IC_{50} of 13 nM.

Purity: 99.86%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 10 mg, 50 mg, 100 mg, 200 mg

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**WEHI-345**

*Cat. No.: HY-18937*

<table>
<thead>
<tr>
<th>Property</th>
<th>Details</th>
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<tbody>
<tr>
<td><strong>Bioactivity</strong>:</td>
<td>WEHI-345 is a potent and selective inhibitor of RIPK2, with IC₅₀ of 0.13 μM. IC₅₀ value: 0.13 μM-target: RIPK2 in vitro. WEHI-345 is a selective RIPK2 kinase inhibitor, which delays RIPK2 ubiquitylation and NF-κB activation downstream of NOD engagement. WEHI-345 is an ATP analogue and was therefore…</td>
</tr>
<tr>
<td><strong>Purity</strong>:</td>
<td>98.56%</td>
</tr>
<tr>
<td><strong>Clinical Data</strong>:</td>
<td>No Development Reported</td>
</tr>
<tr>
<td><strong>Size</strong>:</td>
<td>10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg</td>
</tr>
</tbody>
</table>
Survivin is a member of the inhibitor of apoptosis (IAP) family. The survivin protein functions to inhibit caspase activation, thereby leading to negative regulation of apoptosis or programmed cell death. This has been shown by disruption of survivin induction pathways leading to increase in apoptosis and decrease in tumour growth. Survivin expression is highly regulated by the cell cycle and is only expressed in the G2-M phase. Survivin localizes to the mitotic spindle by interaction with tubulin during mitosis and may play a contributing role in regulating mitosis. Survivin is highly expressed in most cancers and associated with chemotherapy resistance, increased tumor recurrence, and shorter patient survival, making antisurvivin therapy an attractive cancer treatment strategy.
Survivin Inhibitors & Modulators

**GDP366**

Cat. No.: HY-U00177

**Bioactivity:** GDP366, a dual inhibitor of survivin and Op18, induces cell growth inhibition, cellular senescence and mitotic catastrophe in human cancer cells.

**Purity:** >98%

**Clinical Data:** No Development Reported

**Size:** 500 mg, 250 mg

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**YM-155**

(Sepantronium bromide)

Cat. No.: HY-10194

**Bioactivity:** YM-155 is a **survivin** inhibitor with an $IC_{50}$ of 0.54 nM.

**Purity:** 98.91%

**Clinical Data:** Phase 2

**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

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**YM-155 hydrochloride**

Cat. No.: HY-10194A

**Bioactivity:** YM-155 hydrochloride is a novel survivin suppressant with an $IC_{50}$ of 0.54 nM for the inhibition of survivin promoter activity.

**Purity:** >98%

**Clinical Data:** No Development Reported

**Size:** 5 mg, 10 mg, 50 mg, 100 mg
Thymidylate Synthase

Thymidylate synthase (TS) is an E2F1-regulated enzyme that is essential for DNA synthesis and repair. Thymidylate synthase is an essential S phase enzyme required for DNA synthesis. Thymidylate synthase plays a central role in the biosynthesis of thymidylate, an essential precursor for DNA synthesis. Thymidylate synthase catalyzes the reductive methylation of 2’-deoxyuridine 5-monophosphate (dUMP) by transfer of a methylene group from a cofactor, \( \text{CH}_2\text{H}_4 \) folate, to generate deoxythymidine-5’-monophosphate (dTMP). dTMP is further phosphorylated to the triphosphate state (dTTP), which is a direct precursor for DNA synthesis. Since the TS catalyzed reaction is the sole intracellular de novo source of dTMP, the inhibition of TS results in the cessation of cellular proliferation and growth.

Thymidylate synthase protein and mRNA levels are elevated in many human cancers, and high TS levels have been correlated with poor prognosis in patients with colorectal, breast, cervical, bladder, kidney, and non-small cell lung cancers.
Thymidylate Synthase Inhibitors & Modulators

Raltitrexed
(ZD1694; D1694; ICI-D1694)  Cat. No.: HY-10821

Bioactivity: Raltitrexed is an antimetabolite drug used in chemotherapy, acting by inhibiting thymidylate synthase.

Purity: 99.21%
Clinical Data: Launched
Size: 10mM x 1mL in DMSO, 10 mg, 50 mg, 100 mg

Tipiracil
Cat. No.: HY-A0063A

Bioactivity: Tipiracil is a thymidine phosphorylase (TPase) inhibitor.

Purity: 99.87%
Clinical Data: Launched
Size: 5 mg, 10 mg, 50 mg, 100 mg

Trifluridine
(Trifluridine; 5-Trifluorothymidine)  Cat. No.: HY-A0061

Bioactivity: Trifluridine is an irreversible thymidylate synthase inhibitor, and thereby suppresses DNA synthesis. Trifluridine is an antiviral drug for herpes simplex virus (HSV) infection.

Purity: 99.69%
Clinical Data: Launched
Size: 10mM x 1mL in DMSO, 50 mg, 100 mg, 200 mg

Trifluridine-tipiracil hydrochloride mixture
(TAS-102)  Cat. No.: HY-16478

Bioactivity: Trifluridine-tipiracil hydrochloride mixture (TAS-102) is a novel oral combination drug that consists of an antineoplastic thymidine-based nucleoside analog, triflurorothymidine, and a potent thymidine phosphorylase inhibitor, tipiracil, in a 1:0.5 molar ratio.

Purity: 99.72%
Clinical Data: Launched
Size: 5 mg, 10 mg, 50 mg, 100 mg
Tumor necrosis factor (TNF) is a major mediator of apoptosis as well as inflammation and immunity, and it has been implicated in the pathogenesis of a wide spectrum of human diseases, including sepsis, diabetes, cancer, osteoporosis, multiple sclerosis, rheumatoid arthritis, and inflammatory bowel diseases.

TNF-α is a 17-kDa protein consisting of 157 amino acids that is a homotrimer in solution. In humans, the gene is mapped to chromosome 6. Its bioactivity is mainly regulated by soluble TNF-α–binding receptors. TNF-α is mainly produced by activated macrophages, T lymphocytes, and natural killer cells. Lower expression is known for a variety of other cells, including fibroblasts, smooth muscle cells, and tumor cells. In cells, TNF-α is synthesized as pro-TNF (26 kDa), which is membrane-bound and is released upon cleavage of its pro domain by TNF-converting enzyme (TACE).

Many of the TNF-induced cellular responses are mediated by either one of the two TNF receptors, TNF-R1 and TNF-R2, both of which belong to the TNF receptor super-family. In response to TNF treatment, the transcription factor NF-κB and MAP kinases, including ERK, p38 and JNK, are activated in most types of cells and, in some cases, apoptosis or necrosis could also be induced. However, induction of apoptosis or necrosis is mainly achieved through TNFR1, which is also known as a death receptor. Activation of the NF-κB and MAPKs plays an important role in the induction of many cytokines and immune-regulatory proteins and is pivotal for many inflammatory responses.
TNF Receptor Inhibitors & Modulators

**Astilbin**

Cat. No.: HY-N0509

**Bioactivity:** Astilbin, a flavonoid compound, is isolated from the rhizome of Smilax glabra. Astilbin enhances NRF2 activation. Astilbin also suppresses TNF-α expression and NF-κB activation.

**Purity:** 99.43%

**Clinical Data:** No Development Reported

**Size:** 10 mM x 1 mL in DMSO, 10 mg, 25 mg, 50 mg, 100 mg

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**AX-024**

Cat. No.: HY-107390

**Bioactivity:** AX-024 is an *cytokine release* inhibitor which can strongly inhibit the production of interleukin-6 (IL-6), tumor necrosis factor-α (TNFα), interferon-γ (IFN-γ), IL-10 and IL-17A.

**Purity:** 98.0%

**Clinical Data:** Phase 1

**Size:** 10 mM x 1 mL in DMSO, 2 mg, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

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**AX-024 hydrochloride**

Cat. No.: HY-107390A

**Bioactivity:** AX-024 hydrochloride is an *cytokine release* inhibitor which can strongly inhibit the production of interleukin-6 (IL-6), tumor necrosis factor-α (TNFα), interferon-γ (IFN-γ), IL-10 and IL-17A.

**Purity:** 99.29%

**Clinical Data:** Phase 1

**Size:** 10 mM x 1 mL in DMSO, 2 mg, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

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**C 8 7**

Cat. No.: HY-100735

**Bioactivity:** C87 is a novel small-molecule TNFα inhibitor; potently inhibits TNFα-induced cytotoxicity with an IC₅₀ of 8.73 μM.

**Purity:** 98.0%

**Clinical Data:** No Development Reported

**Size:** 10 mM x 1 mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

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**CDC801**

Cat. No.: HY-U00179

**Bioactivity:** CDC801 is a potent and orally active phosphodiesterase 4 (PDE4) and tumor necrosis factor-α (TNF-α) inhibitor with IC₅₀ of 1.1 μM and 2.5 μM, respectively.

**Purity:** >98%

**Clinical Data:** No Development Reported

**Size:** 1 mg, 5 mg, 10 mg, 20 mg

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**Cot inhibitor-1**

Cat. No.: HY-32015

**Bioactivity:** Cot inhibitor-1 is a COT/Tpl2 inhibitor.

**Purity:** 95.25%

**Clinical Data:** No Development Reported

**Size:** 10 mM x 1 mL in DMSO, 2 mg, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

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**Cot inhibitor-2**

Cat. No.: HY-32018

**Bioactivity:** Cot inhibitor-2 is a COT/Tpl2 inhibitor.

**Purity:** 99.20%

**Clinical Data:** No Development Reported

**Size:** 10 mM x 1 mL in DMSO, 2 mg, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

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**Cynaropicrin**

Cat. No.: HY-N2350

**Bioactivity:** Cynaropicrin is a sesquiterpene lactone which can inhibit tumor necrosis factor (TNF-α) release with IC₅₀ of 8.24 and 3.18 μM for murine and human macrophage cells, respectively. Cynaropicrin also inhibits the increase of cartilage degradation factor (MMP13) and suppresses NF-κB.

**Purity:** >98%

**Clinical Data:** No Development Reported

**Size:** 5 mg, 10 mg

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**DCVC**

(S-(1E)-1,2-dichloroethylene-L-cysteine)

Cat. No.: HY-19717

**Bioactivity:** DCVC inhibits pathogen-stimulated TNF-α in human extra placental membranes in vitro. Target: TNF-α in vitro: DCVC inhibits pathogen-stimulated cytokine release from tissue punch cultures. DCVC (5-50 μM) significantly inhibits LTA-, LPS-, and GBS-stimulated cytokine release from tissue cultures.

**Purity:** 99.89%

**Clinical Data:** No Development Reported

**Size:** 10 mM x 1 mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

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**Bioactivity:** DCVC inhibits pathogen-stimulated TNF-α in human extra placental membranes in vitro. Target: TNF-α in vitro: DCVC inhibits pathogen-stimulated cytokine release from tissue punch cultures. DCVC (5-50 μM) significantly inhibits LTA-, LPS-, and GBS-stimulated cytokine release from tissue cultures.

**Purity:** 99.89%

**Clinical Data:** No Development Reported

**Size:** 10 mM x 1 mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

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Tel: 609-228-6898 Fax: 609-228-5909 Email: sales@MedChemExpress.com
Eucalyptol (1,8-Cineole) Cat. No.: HY-N0066

Bioactivity: Eucalyptol is an inhibitor of 5-HT$_3$ receptor, potassium channel, TNF-α and IL-1β.

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

Fisetin Cat. No.: HY-N0182

Bioactivity: Fisetin is a natural flavonol found in many fruits and vegetables with various benefits, such as antioxidant, anticancer, neuroprotection effects.

Purity: 98.02%
Clinical Data: Phase 2
Size: 10mM x 1mL in DMSO, 100 mg, 500 mg, 1 g

Forsythoside B Cat. No.: HY-N0029

Bioactivity: Forsythoside B is a phenylethanoid glycoside isolated from the leaves of Lamiophlomis rotata Kudo, a Chinese folk medicinal plant for treating inflammatory diseases and promoting blood circulation. Forsythoside B could inhibit TNF-alpha, IL-6, IkB and modulate NF-κB.

Purity: 99.99%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

Geraniin Cat. No.: HY-N0472

Bioactivity: Geraniin is a TNF-α releasing inhibitor with numerous activities including anticancer, anti-inflammatory, and anti-hyperglycemic activities, with an IC$_{50}$ of 43 μM.

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

Ginsenoside Rc (Panaxoside Rc) Cat. No.: HY-N0042

Bioactivity: Ginsenoside Rc, one of major Ginsenosides from Panax ginseng, enhances GABA receptor $\alpha_1$ (GABA$\alpha_1$)-mediated ion channel currents (I$_{GABA}$). Ginsenoside Rc inhibits the expression of TNF-α and IL-1β.

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

Ginsenoside Rh1 (Prosapogenin A2; Sanchinoside B2; Sanchinoside Rh1) Cat. No.: HY-N0604

Bioactivity: Ginsenoside Rh1 is isolated from the root of Panax Ginseng. Ginsenoside Rh1 inhibits the expression of PPAR-γ, TNF-α, IL-6, and IL-1β.

Purity: 98.17%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg

Hispidol ((Z)-Hispidol) Cat. No.: HY-102040

Bioactivity: Hispidol ((Z)-Hispidol) is a potential therapeutic for inflammatory bowel disease; inhibits TNF-α induced adhesion of monocytes to colon epithelial cells with an IC$_{50}$ of 0.50 μM.

Purity: 98.57%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 1 mg, 5 mg, 10 mg, 50 mg, 100 mg, 200 mg, 500 mg

Homoplantaginin Cat. No.: HY-N1949

Bioactivity: Homoplantaginin is a flavonoid from a traditional Chinese medicine Salvia plebeia with antiinflammatory and antioxidant properties. Homoplantaginin could inhibit TNF-α and IL-6 mRNA expression, IKKβ and NF-κB phosphorylation.

Purity: 99.81%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg

Hypaconitine Cat. No.: HY-N0267

Bioactivity: Hypaconitine, an active and highly toxic constituent derived from Aconitum species, is widely used to treat rheumatism.

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

Lenalidomide (CC-5013) Cat. No.: HY-A0003

Bioactivity: Lenalidomide is a potent inhibitor of TNF-α used as an immunomodulatory drug. It has also been shown to have anti-angiogenic properties.

Purity: 99.98%
Clinical Data: Launched
Size: 10mM x 1mL in DMSO, 100 mg, 500 mg, 1 g

www.MedChemExpress.com
**Lenalidomide hemihydrate**  
(CC-5013 hemihydrate)  
Cat. No.: HY-A0003B

**Bioactivity:** Lenalidomide is a thalidomide analogue, which inhibits tumor angiogenesis, tumor proliferation and tumor secreted cytokines including TNF-α and IL 6.

**Purity:** 99.82%  
**Clinical Data:** Launched  
**Size:** 10mM x 1mL in DMSO, 100 mg, 500 mg, 1 g

**Lenalidomide hydrochloride**  
(CC-5013 hydrochloride)  
Cat. No.: HY-A0003A

**Bioactivity:** Lenalidomide hydrochloride is a potent inhibitor of TNF-α and has antiangiogenic effect. Lenalidomide functions as a protein homeostatic modulator (PHM) linking casein kinase 1A1 (CK1α) to the human E3 ligase cereblon.

**Purity:** >98%  
**Clinical Data:** Launched  
**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg

**LY 303511**  
Cat. No.: HY-15643

**Bioactivity:** LY303511 is a structural analogue of LY294002. LY303511 does not inhibit PI3K. LY303511 enhances TRAIL sensitivity of SHEP-1 neuroblastoma cells. LY303511 reversibly blocks K+ currents (IC50 = 64.6±9.1 μM) in MIN6 insulinoma cells.

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

**LY 303511 hydrochloride**  
Cat. No.: HY-15643A

**Bioactivity:** LY 303511 hydrochloride is a structural analogue of LY294002. LY303511 does not inhibit PI3K. LY303511 enhances TRAIL sensitivity of SHEP-1 neuroblastoma cells. LY303511 reversibly blocks K+ currents (IC50 = 64.6±9.1 μM) in MIN6 insulinoma cells.

**Purity:** >98%  
**Clinical Data:** No Development Reported  
**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg

**Mesaconitine**  
Cat. No.: HY-N0724

**Bioactivity:** Mesaconitine is the main active component of genus aconitum plants.

**Purity:** 98.97%  
**Clinical Data:** No Development Reported  
**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg

**Methylthiouracil**  
(MTU)  
Cat. No.: HY-B0513

**Bioactivity:** Methylthiouracil is an antithyroid agent. Methylthiouracil suppresses the production of TNF-α and IL-6, and the activation of NF-κB and ERK1/2.

**Purity:** 98.0%  
**Clinical Data:** Launched  
**Size:** 10mM x 1mL in DMSO, 50 mg, 100 mg

**Mulberroside A**  
Cat. No.: HY-N0619

**Bioactivity:** Mulberroside A, the major active anti-tyrosinase compound in the root bark extract of Morus alba L. (Moraceae), is widely employed as an active ingredient in whitening cosmetics. IC50 value: 1.29 μmol/L (inhibition of the monophenolase activity); KI value: 0.385 μmol/L (the inhibition constant of the...

**Purity:** 99.53%  
**Clinical Data:** No Development Reported  
**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg

**N-Formyl-Met-Leu-Phe**  
(fMLP; N-Formyl-MLF)  
Cat. No.: HY-P0224

**Bioactivity:** N-Formyl-Met-Leu-Phe (fMLP; N-Formyl-MLF) is a chemotactic peptide and a specific ligand of N-formyl peptide receptor (FPR). N-Formyl-Met-Leu-Ph is reported to inhibit TNF-alpha secretion.

**Purity:** 99.46%  
**Clinical Data:** No Development Reported  
**Size:** 5 mg, 10 mg, 50 mg

**Necrostatin 2**  
Cat. No.: HY-14622

**Bioactivity:** Necrostatin 2 is a potent necroptosis inhibitor. EC50 for inhibition of necroptosis in FADD-deficient Jurkat T cells treated with TNF-α is 0.05 μM.

**Purity:** 99.97%  
**Clinical Data:** No Development Reported  
**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg

**Necrostatin 2 racemate**  
(Necrostatin-2 racemate)  
Cat. No.: HY-14622A

**Bioactivity:** Necrostatin 2 is a potent necroptosis inhibitor with EC50 of 50 nM.

**Purity:** 99.10%  
**Clinical Data:** No Development Reported  
**Size:** 10mM x 1mL in DMSO, 1 mg, 5 mg, 10 mg, 50 mg
<table>
<thead>
<tr>
<th><strong>Necrostatin 2 S enantiomer</strong></th>
<th><strong>Cat. No.: HY-14622B</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>Necrostatin 2 is a potent necroptosis inhibitor with EC50 of 50 nM.</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>99.83%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>No Development Reported</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>10mM x 1mL in DMSO, 1 mg, 5 mg, 10 mg, 50 mg</td>
</tr>
</tbody>
</table>

| **Neochlorogenic acid** | **(trans-5-O-Caffeoylquinic acid) | **Cat. No.: HY-N0722** |
|------------------------|----------------------------------|
| **Bioactivity:** | Neochlorogenic acid is a natural polyphenolic compound found in dried fruits and other plants. Neochlorogenic acid inhibits the production of TNF-α and IL-1β. Neochlorogenic acid suppresses iNOS and COX-2 protein expression. Neochlorogenic acid also inhibits phosphorylated NF-κB p65 and p38 MAPK. |
| **Purity:** | 99.46% |
| **Clinical Data:** | No Development Reported |
| **Size:** | 10mM x 1mL in DMSO, 5 mg, 10 mg |

<table>
<thead>
<tr>
<th><strong>Pentosan Polysulfate</strong></th>
<th><strong>Cat. No.: HY-A0203</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>Pentosan Polysulfate is a semi-synthetic drug used to treat various medical conditions including thrombi and interstitial cystitis.</td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>98.0%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>Launched</td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>100 mg</td>
</tr>
</tbody>
</table>

| **Pomalidomide** | **(CC-4047) | **Cat. No.: HY-10984** |
|-----------------|----------------------------------|
| **Bioactivity:** | Pomalidomide is an anti-angiogenic agent and an immunomodulator. Pomalidomide inhibits TNF-α release in LPS stimulated human PBMC with an IC50 of 13 nM. |
| **Purity:** | 99.86% |
| **Clinical Data:** | Launched |
| **Size:** | 10mM x 1mL in DMSO, 10 mg, 50 mg, 100 mg, 200 mg |

<table>
<thead>
<tr>
<th><strong>QNZ</strong></th>
<th>(EVP4593)</th>
<th><strong>Cat. No.: HY-13812</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong></td>
<td>QNZ shows strong inhibitory effects on NF-κB transcriptional activation and TNF-α production with IC50 of 11 and 7 nM, respectively. EVP4593 is a neuroprotective inhibitor of SOC channel.</td>
<td></td>
</tr>
<tr>
<td><strong>Purity:</strong></td>
<td>98.46%</td>
<td></td>
</tr>
<tr>
<td><strong>Clinical Data:</strong></td>
<td>No Development Reported</td>
<td></td>
</tr>
<tr>
<td><strong>Size:</strong></td>
<td>10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg</td>
<td></td>
</tr>
</tbody>
</table>

| **R-7050** | **(TNF-α Antagonist III) | **Cat. No.: HY-110203** |
|-----------|-------------------------|
| **Bioactivity:** | R-7050 is a tumor necrosis factor receptor (TNFR) antagonist with greater selectivity toward TNFα. |
| **Purity:** | 98.83% |
| **Clinical Data:** | No Development Reported |
| **Size:** | 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg |

| **Rimiducid** | **(AP1903) | **Cat. No.: HY-16046** |
|-------------|-------------|
| **Bioactivity:** | Rimiducid (AP1903) is a dimerizer agent that acts by cross-linking the FKBP domains, initiating Fas signaling and hence apoptosis. |
| **Purity:** | 99.05% |
| **Clinical Data:** | Phase 2 |
| **Size:** | 10mM x 1mL in DMSO, 2 mg, 5 mg, 10 mg, 50 mg, 100 mg |

| **Roquinimex** | **(Linomide; FCF89; ABR212616) | **Cat. No.: HY-13743** |
|---------------|-------------------------------|
| **Bioactivity:** | Roquinimex (Linomide; PNU212616; ABR212616) is a quinoline derivative immunostimulant which increases NK cell activity and macrophage cytotoxicity; inhibits angiogenesis and reduces the secretion of TNF alpha. IC50 value: Target: TNF alpha Prophylactic administration of DSS-treated mice with... |
| **Purity:** | 98.88% |
| **Clinical Data:** | No Development Reported |
| **Size:** | 10mM x 1mL in DMSO, 10 mg, 50 mg |

| **Shikonin** | **(C.I. 75535; Isoarnebin 4) | **Cat. No.: HY-N0822** |
|-------------|-----------------------------|
| **Bioactivity:** | Shikonin is a major component of a Chinese herbal medicine named zicao. Shikonin has shown various biological activities, including inhibition of TNF-α, NF-κB, HIV-1. |
| **Purity:** | 99.64% |
| **Clinical Data:** | No Development Reported |
| **Size:** | 10mM x 1mL in DMSO, 10 mg, 25 mg, 50 mg, 100 mg |

| **Sinensetin** | **(Pedalitin permethyl ether) | **Cat. No.: HY-N0297** |
|---------------|-----------------------------|
| **Bioactivity:** | Sinensetin is a methylated flavone found in certain citrus fruits, possess potent antiangiogenesis and anti-inflammatory, sinensetin enhances adipogenesis and lipolysis. |
| **Purity:** | 99.22% |
| **Clinical Data:** | No Development Reported |
| **Size:** | 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg |

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**SPD304**

**Cat. No.: HY-111255**

**Bioactivity:** SPD304 is a selective inhibitor of tumor necrosis factor α (TNFα) and promotes dissociation of TNF trimers and therefore blocks the interaction of TNF and its receptor, with an \( IC_{50} \) of 22 µM for inhibiting in vitro TNF receptor 1 (TNF...)

**Purity:** 99.0%

**Clinical Data:** No Development Reported

**Size:** 1 mg

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**Taurochenodeoxycholic acid**

(12-Deoxycholyltaurine)

**Cat. No.: HY-N2027**

**Bioactivity:** Taurochenodeoxycholic acid is one of the main bioactive substances of animals' bile acid.

**Purity:** 99.80%

**Clinical Data:** Launched

**Size:** 10mM x 1mL in DMSO, 50 mg

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**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