IAP

IAP (Inhibitor of apoptosis) proteins, a family of anti-apoptotic proteins, have an important role in evasion of apoptosis, as they can both block apoptosis-signaling pathways and promote survival. Eight members of this family have been described in humans (BIRC1/NAIP, BIRC2/cIAP1, BIRC3/cIAP2, BIRC4/XIAP, BIRC5/Survivin, BIRC6/Apollon, BIRC7/ML-IAP and BIRC8/ILP2).

IAP genes encode proteins that directly bind and inhibit caspases, and thus play a critical role in deciding cell fate. The IAPs are in turn regulated by endogenous proteins (second mitochondrial activator of caspases and Omi) that are released from the mitochondria during apoptosis. IAP protein family members are frequently overexpressed in cancer and contribute to tumor cell survival, chemo-resistance, disease progression, and poor prognosis. Targeting critical apoptosis regulators, like IAPs, is an attractive therapeutic way undertaken for the development of new classes of therapies for cancer.

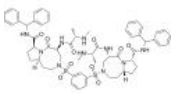
Although best known for their ability to regulate caspases, IAPs also influence ubiquitin (Ub)-dependent pathways that modulate innate immune signaling via activation of NF-κB. Several members of the IAP family regulate innate and adaptive immunity through modulation of signal transduction pathways, cytokine production, and cell survival. The regulation of immunity by the IAPs is primarily mediated through the ubiquitin ligase function of cIAP1, cIAP2, and XIAP, the targets of which impact NF-κB and MAPK signalling pathways.

IAP Inhibitors & Antagonists

APG-1387

Cat. No.: HY-125593

APG-1387, a bivalent SMAC mimetic and an **IAP** antagonist, blocks the activity of IAPs family proteins (XIAP, cIAP-1, cIAP-2, and ML-IAP). APG-1387 induces degradation of cIAP-1 and XIAP proteins, as well as caspase-3 activation and PARP cleavage, which leads to apoptosis.

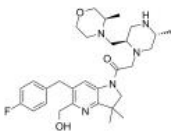


Purity: 99.46%
Clinical Data: Phase 2
Size: 1 mg, 5 mg, 10 mg

ASTX660

Cat. No.: HY-109565

ASTX660 is an orally bioavailable dual antagonist of cellular inhibitor of apoptosis protein (**cIAP**) and X-linked inhibitor of apoptosis protein (**XIAP**).

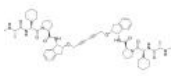


Purity: 99.60%
Clinical Data: Phase 2
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

AZD5582

Cat. No.: HY-12600

AZD5582 is an antagonist of the inhibitor of **apoptosis proteins (IAPs)**, which binds to the BIR3 domains cIAP1, cIAP2, and XIAP with IC_{50}s of 15, 21, and 15 nM, respectively. AZD5582 induces **apoptosis**.



Purity: 98.11%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg

AZD5582 dihydrochloride

Cat. No.: HY-110346

AZD5582 dihydrochloride is an antagonist of the inhibitor of **apoptosis proteins (IAPs)**, which binds to the BIR3 domains cIAP1, cIAP2, and XIAP with IC_{50}s of 15, 21, and 15 nM, respectively. AZD5582 induces **apoptosis**.

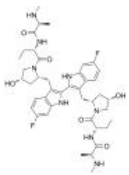
Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Birinapant

(TL32711)

Cat. No.: HY-16591

Birinapant (TL32711), a bivalent Smac mimetic, is a potent antagonist for **XIAP** and **cIAP1** with K_ds of 45 nM and less than 1 nM, respectively.

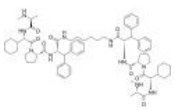


Purity: 99.70%
Clinical Data: Phase 2
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

BV6

Cat. No.: HY-16701

BV6 is an antagonist of **cIAP1** and **XIAP**, members of the inhibitors of apoptosis (IAP) family.



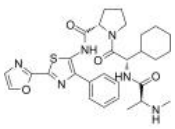
Purity: 99.84%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

CUDC-427

(GDC-0917)

Cat. No.: HY-15835

CUDC-427 is a potent second-generation pan-selective **IAP** antagonist, used for treatment of various cancers.



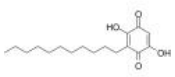
Purity: 99.01%
Clinical Data: Phase 1
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg

Embelin

(Embelic acid; Emberine; NSC 91874)

Cat. No.: HY-17473

Embelin (Embelic acid), a potent, nonpeptidic **XIAP** inhibitor (IC_{50}=4.1 μM), inhibits cell growth, induces **apoptosis**, and activates caspase-9 in prostate cancer cells with high levels of XIAP.

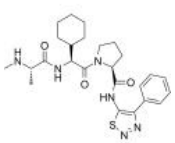


Purity: 98.75%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 10 mg, 50 mg

GDC-0152

Cat. No.: HY-13638

GDC-0152 is a potent **IAPs** inhibitor, and binds to the BIR3 domains of **XIAP**, **cIAP1**, **cIAP2** and the BIR domain of **ML-IAP** with K_i values of 28 nM, 17 nM, 43 nM and 14 nM, respectively.

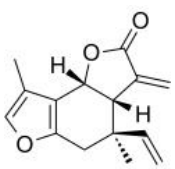


Purity: 99.89%
Clinical Data: Phase 1
Size: 10 mM × 1 mL, 10 mg, 50 mg, 100 mg

Isolinderalactone

Cat. No.: HY-N3001

Isolinderalactone suppresses human glioblastoma growth and angiogenic activity through the inhibition of **VEGFR2** activation in endothelial cells. Isolinderalactone suppresses the expression of **B-cell lymphoma 2 (Bcl-2)**, **survi**.

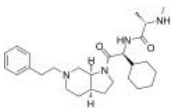


Purity: >98%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg

LBW242

Cat. No.: HY-15519

LBW242, a 3-mer and Smac mimetic, is a potent and orally active proapoptotic **IAP** inhibitor. LBW242 shows effects on mutant FLT3-expressing cells. LBW242 has activity against multiple myeloma, and potentiates TRAIL- and anticancer drug-mediated cell death of ovarian cancer cells.

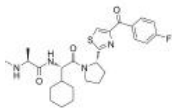


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

LCL161

Cat. No.: HY-15518

LCL161 is a **IAP** inhibitor which inhibits **XIAP** in HEK293 cell and **cIAP1** in MDA-MB-231 cell with IC_{50}s of 35 and 0.4 nM, respectively.

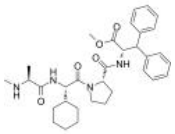


Purity: 99.74%
Clinical Data: Phase 2
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

MV1

Cat. No.: HY-113534

MV1 is an antagonist of **IAP** (inhibitor of apoptosis protein), leads to protein knockdown of HaloTag-fused proteins when combined with HaloTag ligand.

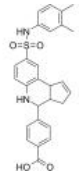


Purity: 99.54%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

MX69

Cat. No.: HY-100892

MX69 is an inhibitor of **MDM2/XIAP**, used for cancer treatment.

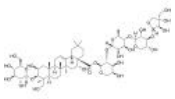


Purity: 99.99%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 1 mg, 5 mg, 10 mg, 50 mg, 100 mg

Polygalacin D

Cat. No.: HY-N6064

Polygalacin D (PGD) is a bioactive compound isolated from Platycodon grandiflorum (Jacq.) with anticancer and anti-proliferative properties.



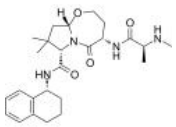
Purity: 99.30%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

SBP-0636457

(SBI-0636457; SB1-0636457)

Cat. No.: HY-125378

SBP-0636457 (SB1-0636457) is a SMAC mimetic, and as an **IAP** antagonist. SBP-0636457 binds to the BIR-domains of the **IAP proteins**, with a K_i of 0.27 μM. SBP-0636457 can be used for the research of solid tumors and hematologic cancers.

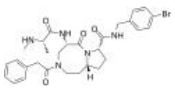


Purity: 98.42%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg, 50 mg

SM-1295

Cat. No.: HY-124181

SM-1295 is an inhibitor of **apoptosis protein (IAP)** antagonist, with K_d values of 3077 nM, 3.2 nM and 9.5 nM for XIAP-BIR3, c-IAP1-BIR3 and c-IAP2-BIR3, respectively.



Purity: 98.71%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

SM-164

Cat. No.: HY-15989

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_{50} value of 1.39 nM and functions as an extremely potent antagonist of **XIAP**.

Purity: 99.65%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 50 mg, 100 mg

SM-164 Hydrochloride

Cat. No.: HY-15989A

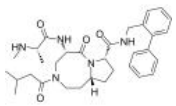
SM-164 Hydrochloride is a cell-permeable Smac mimetic compound. SM-164 binds to **XIAP** protein containing both the BIR2 and BIR3 domains with an IC_{50} value of 1.39 nM and functions as an extremely potent antagonist of **XIAP**.

Purity: 99.0%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg

SM-433

Cat. No.: HY-138059

SM-433, a Smac mimetic, function as inhibitor of **inhibitor of apoptosis proteins (IAPs)**. SM-433 exhibits strong binding affinity XIAP BIR3 protein with an IC_{50}<1 μM (patent WO2008128171A2).

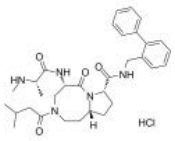


Purity: 98.06%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

SM-433 hydrochloride

Cat. No.: HY-138059A

SM-433 hydrochlorid, a Smac mimetic, function as inhibitor of **inhibitor of apoptosis proteins (IAPs)**. SM-433 hydrochlorid exhibits strong binding affinity XIAP BIR3 protein with an IC_{50}<1 μM (patent WO2008128171A2).

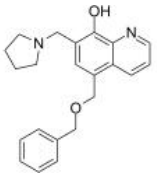


Purity: 98.57%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

UC-112

Cat. No.: HY-12842

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).



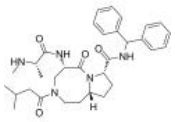
Purity: 99.72%
Clinical Data: No Development Reported
Size: 10 mg

Xevinapant

(AT-406; Debio 1143; SM-406)

Cat. No.: HY-15454

Xevinapant (AT-406) is a potent and orally bioavailable Smac mimetic and an antagonist of **IAPs**, and it binds to XIAP, cIAP1, and cIAP2 proteins with K_i of 66.4, 1.9, and 5.1 nM, respectively.

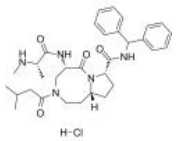


Purity: 99.84%
Clinical Data: Phase 3
Size: 10 mM × 1 mL, 10 mg, 50 mg

Xevinapant hydrochloride (AT-406 hydrochloride; Debio 1143 hydrochloride; SM-406 hydrochloride)

Cat. No.: HY-13208

Xevinapant (AT-406) hydrochloride is a potent and orally bioavailable Smac mimetic and an antagonist of the inhibitor of apoptosis proteins **(IAPs)**. Xevinapant hydrochloride binds to XIAP, cIAP1, and cIAP2 proteins with K_is of 66.4, 1.9, and 5.1 nM, respectively.

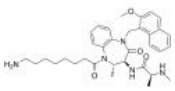


Purity: 98.80%
Clinical Data: No Development Reported
Size: 10 mg, 50 mg

XIAP degrader-1

Cat. No.: HY-115865

XIAP degrader-1, a primary amine tethered small molecule, promotes the degradation of **X-linked inhibitor of apoptosis protein (XIAP)**.

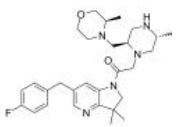


Purity: 99.31%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg

XIAP/cIAP1 antagonist-1

Cat. No.: HY-102051

XIAP/cIAP1 antagonist-1 is a potent and orally active **XIAP/cIAP1** antagonist with EC_{50}s of 5.1 nM and 0.32 nM for XIAP and cIAP1, respectively. XIAP/cIAP1 antagonist-1 inhibits the tumor growth in dose-dependent manner in vivo.



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