

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, Activators & Inducers



Aristolactam I		Arnicolide D	
(Aristololactam; Aristolactam) Aristololactam I (AL-I), is the main metabolite of aristolochic acid I (AA-I), participates in the processes that lead to renal damage. Purity: 99.69% Clinical Data: No Development Reported	Cat. No.: HY-N2013	Arnicolide D is a sesquiterpene lactone isolated from Centipeda minima. Arnicolide D modulates the cell cycle, activates the caspase signaling pathway and inhibits the PI3K/AKT/mTOR and STAT3 signaling pathways. Purity: 99.20% Clinical Data: No Development Reported	Cat. No.: HY-N6843
Size: 10 mM × 1 mL, 1 mg, 5 mg, 10 mg		Size: 1 mg, 5 mg	
Asperosaponin VI	Cat. No.: HY-N0265	Belnacasan (VX-765)	Cat. No.: HY-13205
Asperosaponin VI, A saponin component from Dipsacus asper wall, induces osteoblast differentiation through BMP2/p38 and ERK1/2 pathway.		Belnacasan (VX-765) is an orally bioactive prodrug of VRT-043198, which is a potent and selective inhibitor of IL-converting enzyme (ICE)/caspase-1 with K _s of 0.8 nM and less than 0.6 nM for caspase-1 and caspase-4, respectively.	₽-get [#] ₽
Purity:98.73%Clinical Data:No Development ReportedSize:5 mg, 10 mg, 20 mg		Purity: 99.99% Clinical Data: Phase 2 Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg,	100 mg
Biotin-VAD-FMK	Cat. No.: HY-100894	Boc-Asp(OMe)-fluoromethyl ketone (Boc-Asp(OMe)-FMK)	Cat. No .: HY-103348
Biotin-VAD-FMK is a cell permeable, irreversible biotin-labeled caspase inhibitor, used to identify active caspases in cell lysates.	alter and	Boc-Asp(OME)-Fluoromethyl Ketone is a broad range caspase inhibitor that inhibits Fas-mediated phagocytosis and oxidative rupture inhibition, but does not affect the chemotactic activity of IL-8.	×oly -
Purity: ≥98.0% Clinical Data: No Development Reported Size: 1 mg, 5 mg		Purity:>98%Clinical Data:No Development ReportedSize:1 mg, 5 mg	
вос-д-ғмк	Cat. No.: HY-13229	Chelidonic acid	Cat. No.: HY-W041489
Boc-D-FMK is a cell-permeable, irreversible and broad spectrum caspase inhibitor. Boc-D-FMK inhibits apoptosis stimulated by TNF- α with an IC_{s0} of 39 μ M.	×oly for	Chelidonic acid is a component of Chelidonium majus L, used as an antimicrobial. Chelidonic acid also shows anti-inflammatory activity. Chelidonic acid has potential to inhibit IL-6 production by blocking NF- κ B and caspase-1.	но он
Purity: ≥95.0% Clinical Data: No Development Reported Size: 10 mM × 1 mL, 1 mg, 5 mg, 10 mg, 50 mg		Purity:95.41%Clinical Data:No Development ReportedSize:10 mM × 1 mL, 100 mg	0 0
Crustecdysone (20-Hydroxyecdysone)	Cat. No.: HY-N6979	Dehydrocorydaline (13-Methylpalmatine)	Cat. No.: HY-N0674
Crustecdysone (20-Hydroxyecdysone) is a naturally occurring ecdysteroid hormone isolated from Cyanotis arachnoides C.B.Clarke which controls the ecdysis (moulting) and metamorphosis of arthropods, it inhibits caspase activity and induces autophagy via the 20E nuclear		Dehydrocorydaline (13-Methylpalmatine) is an alkaloid that regulates protein expression of Bax, Bcl-2 ; activates caspase-7 , caspase-8 , and inactivates PARP . Dehydrocorydaline elevates p38 MAPK activation. Anti-inflammatory and anti-cancer activities.	
Purity: 99.64% Clinical Data: No Development Reported Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg		Purity:99.01%Clinical Data:No Development ReportedSize:10 mM × 1 mL, 5 mg, 10 mg	





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MX1013 (CV1013; Z-VD-FMK)	Cat. No .: HY-10397A	Nivalenol	Cat. No.: HY-N6801
MX1013 is a potent, irreversible dipeptide caspase inhibitor vith antiapoptotic activity. MX1013 inhibits recombinant human caspase 3 with an IC ₅₀ of 30 nM. Purity: >98% Clinical Data: No Development Reported Size: 1 mg, 5 mg	Charth Rong	Nivalenol, classified as type B trichotecenes toxins produced by Fusarium graminearum, is a fungal metabolite present in agricultural product. Nivalenol induces cell death through caspase -dependent mechanisms and via the intrinsic apoptotic pathway. Purity: ≥99.0% Clinical Data: No Development Reported Size: 1 mq, 5 mg	он он он он
Ossirene (AS101)	Cat. No.: HY-101019	OT-82	Cat. No.: HY-136241
Ossirene (AS101), an immunomodulatory tellurium compound, is a potent IL-1 β inhibitor. Ossirene abolishes phosphorylation of STAT3 by inhibiting IL-10. Ossirene potently inhibits Caspase-1 and is used for the autoimmune diseases and certain malignancies.		OT-82 is a potent, selective and orally active inhibitor of NAMPT . OT-82 is selectively toxic to cells of hematopoietic origin and induces cell death in a NAD ⁺ dependent manner. OT-82 is a promising antineoplastic agent for the study of hematological malignancies.	a alara
Purity: ≥98.0% Clinical Data: No Development Reported Size: 5 mg	NH4 ⁺	Purity: 99.84% Clinical Data: Phase 1 Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg	
PAC-1		Paris saponin VII	
(Procaspase activating compound 1)	Cat. No.: HY-13523	(Chonglou Saponin VII)	Cat. No.: HY-N3584
PAC-1 is a procaspase-3 activator that induces apoptosis in cancer cells with an EC_{s0} of 2.08 μ M.	orange	Paris saponin VII (Chonglou Saponin VII) is a steroidal saponin isolated from the roots and rhizomes of Trillium tschonoskii Maxim. Paris saponin VII-induced apoptosis in K562/ADR cells is associated with Akt/MAPK and the inhibition of P-qp.	zázásátotta Martin ferendezetetetetetetetetetetetetetetetetetete
Purity: 99.93% Clinical Data: Phase 2 Size: 10 mM × 1 mL, 10 mg, 50 mg, 100 mg, 500 mg		Purity: 99.13% Clinical Data: No Development Reported Size: 5 mg, 10 mg	
Penicillic acid		PETCM	
	Cat. No.: HY-N6777		Cat. No.: HY-103349
Penicillic acid is a polyketide mycotoxin produced by several species of Aspergillus and Penicillium. Penicillic acid exhibits cytotoxicity in rat alveolar macrophages (AM) in vitro.	С ОН	PETCM is an activator of caspase-3 and acts as an cytochrome c (cyto c)-dependent manner. PETCM promotes Apaf-1 oligomerization and induces cell apoptosis in HeLa cells.	
Purity:99.83%Clinical Data:No Development ReportedSize:10 mM × 1 mL, 5 mg, 10 mg	Ū	Purity:99.36%Clinical Data:No Development ReportedSize:10 mM × 1 mL, 5 mg, 10 mg	
PnenOXOdIOI (Idronoxil; Dehydroequol; Haginin E)	Cat. No.: HY-13721	Prainacasan (VX-740; HMR 3480)	Cat. No.: HY-19676
Phenoxodiol, a synthetic analog of Genestein, activates the mitochondrial caspase system, inhibits XIAP (an apoptosis inhibitor), and sensitizes the cancer cells to Fas-mediated apoptosis.	HOUTO	Pralnacasan (VX-740) is a potent, selective, non-peptide and orally active interleukin-1β converting enzyme (ICE, caspase 1) inhibitor with a K _i of 1.4 nM. Pralnacasan inhibits proinflammatory cytokines IL-18 , IL-1β , and IFN-γ .	
Purity: ≥98.0% Clinical Data: Phase 3 Size: 10 mM × 1 mL, 5 mg, 10 mg		Purity:98.75%Clinical Data:No Development ReportedSize:1 mg, 5 mg, 10 mg, 25 mg	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Q-VD-OPh (QVD-OPH; Quinoline-Val-Asp-Difluorophenoxymethylketone) Cat. No.: HY-12305	QM31 (SVT016426) Cat. No.: HY-125018
Q-VD-OPh is an irreversible pan-caspase inhibitor with potent antiapoptotic properties; inhibits caspase 7 with an IC ₅₀ of 48 nM and 25-400 nM for other caspases including caspase 1, 3, 8, 9, 10, and 12. Q-VD-OPh can inhibits HIV infection. Q-VD-OPh is able to cross the blood-brain barrier. Purity: 99.78% Clinical Data: No Development Reported Size: 10 mM × 1 ml 1 mg 5 mg 10 mg 25 mg 50 mg	QM31 (SVT016426), a cytoprotective agent, is a selective inhibitor of Apaf-1. QM31 inhibits the formation of the apoptosome (IC ₅₀ =7.9 μ M), the caspase activation complex composed by Apaf-1, cytochrome c, dATP and caspase-9. Purity: >98% Clinical Data: No Development Reported Size: 1 mo 5 mo
Size. 10 milli × 1 mil, 1 mg, 10 mg, 25 mg, 50 mg	Size. Ling, Sing
Raptinal Cat. No.: HY-121320	SDZ 224-015 Cat. No.: HY-141622
Raptinal, a agent that directly activates caspase-3, initiates intrinsic pathway caspase-dependent apoptosis. Raptinal is able to rapidly induce cancer cell death by directly activating the effector caspase-3, bypassing the activation of initiator caspase-8 and caspase-9. Purity: \geq 98.0% Clinical Data: No Development Reported Size: 5 mg, 10 mg	SDZ 224-015 is an orally active inhibitor of the interleukin-1 beta (IL-1β) converting enzyme and caspase-1. SDZ 224-015 possesses anti-COVID-19 activity, targeting M ^{pro} (IC ₅₀ of 30 nM). br/>. Purity: 95.49% Clinical Data: No Development Reported Size: 5 mg, 10 mg, 25 mg, 50 mg, 100 mg
Senkyunolide I Cat. No.: HY-N0745	Sesamolin Cat. No.: HY-N0809
Senkyunolide I, isolated from Ligusticum chuanxiong Hort, is an anti-migraine compound. Senkyunolide I protects rat brain against focal cerebral ischemia-reperfusion injury by up-regulating p-Erk1/2, Nrf2/HO-1 and inhibiting caspase 3. Purity: 98.54% Clinical Data: No Development Reported Size: 1 mg, 5 mg	Sesaminol, isolated from Justicia orbiculata, has antioxidative activity, Sesaminol inhibits lipid peroxidation and shows neuroprotection effect. Sesaminol potently inhibits MAPK cascades by preventing phosphorylation of JNK , p38 MAPKs , and caspase-3 but not ERK-MAPK expression. Purity: 99.78% Clinical Data: No Development Reported Size: 5 mg, 10 mg, 20 mg
Taurodeoxycholic acid sodium hydrate (Sodium taurodeoxycholate monohydrate) Cat. No.: HY-B1899A	Tauroursodeoxycholate (Tauroursodeoxycholic acid; TUDCA; UR 906) Cat. No.: HY-19696
Taurodeoxycholic acid sodium hydrate (Sodium taurodeoxycholate monohydrate) prevents apoptosis by blocking a calcium-mediated apoptotic pathway as well as caspase-12 activation.	Tauroursodeoxycholate (Tauroursodeoxycholic acid) 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: ≥98.0% Clinical Data: Launched Size: 10 mM × 1 mL, 10 mg, 50 mg	Purity: ≥98.0% Clinical Data: No Development Reported Size: 10 mM × 1 mL, 50 mg
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I auroursodeoxycholate dlnydrate (Tauroursodeoxycholic acid dihydrate; TUDCA dihydrate; UR 906 dihydrate) Cat. No.: HY-19696B	I auroursodeoxycholate sodium (Tauroursodeoxycholic acid sodium; TUDCA sodium; UR 906 sodium) Cat. No.: HY-19696A
Tauroursodeoxycholate (Tauroursodeoxycholic acid; TDUCA) dihydrate 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: $\geq 98.0\%$	Tauroursodeoxycholate (Tauroursodeoxycholic acid; TUDCA) sodium 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 .
Clinical Data: No Development Reported Size: 10 mM × 1 mL, 50 mg	Clinical Data:No Development ReportedSize:10 mM × 1 mL, 100 mg, 500 mg



Wedelolactone		Z-Asp-CH2-DCB	
	Cat. No.: HY-N0551		Cat. No.: HY-113953
Wedelolactone, a natural product from Ecliptae herba, suppresses LPS-induced caspase-11 expression by directly inhibiting the IKK Complex. Wedelolactone inhibits 5-lipoxygenase (5-Lox) (IC ₅₀ ~2.5 µM) activity by an oxygen radical scavenging mechanism.	HO J JO JO	Z-Asp-CH2-DCB is an irreversible broad spectrum caspase inhibitor. Z-Asp-CH2-DCB also inhibits proteases with caspase-like activity.	Coop of the state
Purity:99.91%Clinical Data:No Development ReportedSize:10 mM × 1 mL, 5 mg, 10 mg, 20 mg		Purity:99.28%Clinical Data:No Development ReportedSize:10 mM × 1 mL, 1 mg, 5 mg	
Z-DEVD-AFC	Cat. No.: HY-P1986	Z-DEVD-AMC	Cat. No.: HY-P3363
Z-DEVD-AFC is a cell-permeant substrate for caspase-3, which causes a shift in fluorescence uponcleavage of the AFC fluorophore. Z-DEVD-AFC can be used to detect caspase-3-like enzymes activity.	ڡؠڹڮؙؾڹڹڹڷۊۑؿ	Z-DEVD-AMC is a selective caspase-3 substrate that can be measured by fluorescence spectrometry. AMC can be used as a fluorescence reference standard for AMC-based enzyme substrates including AMC-based caspase substrates.	
Purity: >98% Clinical Data: No Development Reported Size: 1 mg, 5 mg		Purity:>98%Clinical Data:No Development ReportedSize:1 mg, 5 mg	
Z-DEVD-FMK		Z-IETD-FMK	
	Cat. No.: HY-12466	(Z-IE(OMe)TD(OMe)-FMK)	Cat. No.: HY-101297
Z-DEVD-FMK is a specific and irreversible caspase-3 inhibitor with an IC_{s0} of 18 $\mu\text{M}.$		Z-IETD-FMK (Z-IE(OMe)TD(OMe)-FMK) is a selective and cell permeable caspase-8 inhibitor. Z-IETD-FMK is also a granzyme B inhibitor.	<i>مىپ</i> زېزېند
Purity: ≥98.0% Clinical Data: No Development Reported Size: 10 mM × 1 mL, 1 mg, 5 mg, 10 mg	₩ ^H o ^k o	Purity: ≥98.0% Clinical Data: No Development Reported Size: 10 mM × 1 mL, 1 mg, 5 mg	
Z-LE(OMe)TD(OMe)-FMK		Z-LEHD-FMK	
	Cat. No.: HY-138203		Cat. No.: HY-P1010
Z-LE(OMe)TD(OMe)-FMK is a selective caspase-8 inhibitor. Z-LE(OMe)TD(OMe)-FMK can inhibit cell apoptosis.	مهنېړېند	Z-LEHD-FMK is a selective and irreversible inhibitor of caspase-9 , protects against lethal reperfusion injury and attenuates apoptosis. Z-LEHD-FMK exhibits the neuroprotective effect in a rat model of spinal cord trauma.	
Purity:>98%Clinical Data:No Development ReportedSize:1 mg, 5 mg		Purity: ≥98.0% Clinical Data: No Development Reported Size: 1 mg	
Z-LEHD-FMK TFA		Z-VAD(OMe)-FMK	
	Cat. No.: HY-P1010A	(Z-Val-Ala-Asp(OMe)-FMK)	Cat. No.: HY-16658
Z-LEHD-FMK TFA is a selective and irreversible inhibitor of caspase-9 , protects against lethal reperfusion injury and attenuates apoptosis. Z-LEHD-FMK TFA exhibits the neuroprotective effect in a rat model of spinal cord trauma.	ange frester Ange frester	Z-VAD(OMe)-FMK (Z-Val-Ala-Asp(OMe)-FMK) is a cell-permeable and irreversible pan-caspase inhibitor. Z-VAD(OMe)-FMK is an ubiquitin carboxy-terminal hydrolase L1 (UCHL1) inhibitor. Z-VAD(OMe)-FMK irreversibly modifies UCHL1 by targeting the active site of UCHL1.	og H J Landon
Purity: >98% Clinical Data: No Development Reported Size: 1 mg, 5 mg		Purity:98.20%Clinical Data:No Development ReportedSize:10 mM × 1 mL, 1 mg, 5 mg, 10 mg	

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Z-VAD-FMK		Z-VDVAD-FMK	
(Z-VAD(OH)-FMK)	Cat. No.: HY-16658B		Cat. No.: HY-P1008
Z-VAD-FMK (Z-VAD(OH)-FMK) is a well-know pan caspase inhibitor, which does not inhibit ubiquitin carboxy-terminal hydrolase L1 (UCHL1) activity even at concentrations as high as 440 µM.	Contraction	Z-VDVAD-FMK is a special inhibitor of caspase-2 . Z-VDVAD-FMK produces a reduction in Lovastatin-induced apoptosis .	Construction of the
Purity:99.76%Clinical Data:No Development ReportedSize:10 mM × 1 mL, 5 mg, 10 mg		Purity:>98%Clinical Data:No Development ReportedSize:1 mg, 5 mg, 10 mg	
Z-WEHD-FMK	Cat. No.: HY-P0111	Z-YVAD-FMK	Cat. No.: HY-P1009
Z-WEHD-FMK is a potent, cell-permeable and irreversible caspase-1/5 inhibitor. Z-WEHD-FMK also exhibits a robust inhibitory effect on cathepsin B activity ($IC_{so}=6 \mu M$). Z-WEHD-FMK can be used to investigate cells for evidence of apoptosis. Purity: 98.64% Clinical Data: No Development Reported Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg		Z-YVAD-FMK is a cell-permeable caspase-1 and -4 inhibitor with anti-inflammatory and anti-tumor activities. Purity: ≥98.0% Clinical Data: No Development Reported Size: 10 mM × 1 mL, 1 mg, 5 mg, 10 mg	angeler and
ZYZ-488	Cat. No.: HY-100472		
ZYZ-488 is a competitive apoptotic protease activating factor-1 (Apaf-1) inhibitor. ZYZ-488 inhibits the activation of binding protein	o _{sc} om o		

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procaspase-9 and procaspase-3.

99.80%

Clinical Data:No Development ReportedSize:10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

Purity: