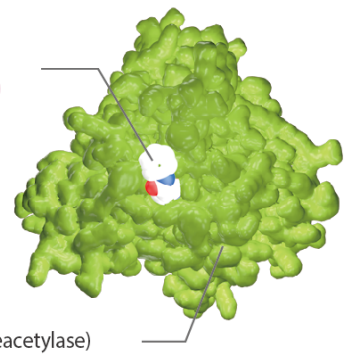
Cathepsin



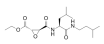
Cathepsins are proteases (enzymes that degrades proteins) found in all animals as well as other organisms. The cathepsin family of proteolytic enzymes contains several diverse classes of proteases. Most of the members become activated at the low pH found in lysosomes. The activity of this family lies almost entirely within those organelles. Cathepsins have a vital role in mammalian cellular turnover, e.g. bone resorption. They degrade polypeptides and are distinguished by their substratespecificities. Classification: Cathepsin A, Cathepsin B, Cathepsin C, Cathepsin D, Cathepsin E, Cathepsin F, Cathepsin G, Cathepsin H, Cathepsin K, Cathepsin L1, Cathepsin L2, Cathepsin O, Cathepsin S, Cathepsin W, Cathepsin Z. Most cathepsins are lysosomal and each is involved in cellular metabolism, participating in various events such as peptide biosynthesis and protein degradation. Cathepsins may also cleave some protein precursors, thereby releasing regulatory peptides.

Cathepsin Inhibitors & Modulators

Aloxistatin
(E64d; E64c ethyl ester) Cat. No.: HY-100229

Bioactivity: Aloxistatin (E64d) is a cell-permeable and irreversible broad-spectrum **cysteine protease** inhibitor.

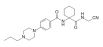
Purity: 98.22%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 1 mg, 5 mg, 10 mg, 25 mg



Balicatib
(AAE581) Cat. No.: HY-15100

Bioactivity: Balicatib(AAE-581) is a potent and selective inhibitor of cathepsin K; 10-100 fold more potent in cell-based enzyme occupancy assays than against cathepsin B, L, and S.

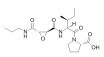
Purity: 97.23%
Clinical Data: Phase 2
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg



CA-074
Cat. No.: HY-103350

Bioactivity: CA-074 is a potent inhibitor of **cathepsin B** with a K_i of 2 to 5 nM.

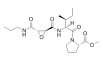
Purity: 99.85%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 1 mg, 5 mg, 10 mg



CA-074 methyl ester
(CA-074Me) Cat. No.: HY-100350

Bioactivity: CA-074 methyl ester is a specific inhibitor of **Cathepsin B**, which has potent bioactivities such as neuroprotective, anti-cancer, and anti-inflamatory effects.

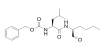
Purity: 98.40%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 1 mg, 5 mg, 10 mg, 25 mg



Calpeptin
Cat. No.: HY-100223

Bioactivity: Calpeptin is a potent, cell penetrating **calpain** inhibitor, with an ID_{50} of 40 nM for Calpain I in human platelets [1].
Calpeptin is also an inhibitor of **cathepsin K** [2].

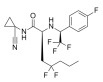
Purity: 98.0%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg, 200 mg



Cathepsin Inhibitor 2
Cat. No.: HY-U00377

Bioactivity: Cathepsin Inhibitor 2 is a potent **Cathepsin S** inhibitor extracted from patent WO2009123623A1, has a K_i of <20 nM.

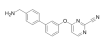
Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg, 10 mg



Cysteine Protease inhibitor (2-Pyrimidinecarbonitrile, 4-[[4'-(aminomethyl)[1,1'-biphenyl]-3-yl]oxy]-)
Cat. No.: HY-17541

Bioactivity: Cysteine Protease inhibitor is an inhibitor of **cysteine protease**. IC50 & Target: Cysteine Protease

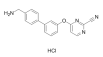
Purity: 97.14%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg



Cysteine Protease inhibitor hydrochloride
Cat. No.: HY-17541A

Bioactivity: Cysteine Protease inhibitor hydrochloride is an inhibitor of **cysteine protease**. IC50 & Target: Cysteine Protease

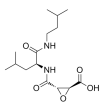
Purity: 96.22%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg



E 64c
Cat. No.: HY-100227

Bioactivity: E 64c is a derivative of naturally occurring epoxide inhibitor of **cysteine proteases**, a Calcium-activated neutral protease **(CANP)** inhibitor and a very weak irreversible **cathepsin C** inhibitor.

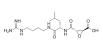
Purity: >98%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg, 50 mg



E-64
(Proteinase inhibitor E 64) Cat. No.: HY-15282

Bioactivity: E-64 is a potent irreversible inhibitor against general **cysteine proteases** with IC_{50} of 9 nM for **papain**.

Purity: 99.62%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg

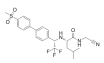


L-873724

Cat. No.: HY-50887

Bioactivity: L-873724 is a potent, orally bioavailable, selective and reversible [2] non-basic cathepsin K inhibitor, with **IC_{50}**s of 0.2, 178, 264, and 5239 nM for cathepsin K, cathepsin S, cathepsin L, cathepsin B, respectively [1]. L-873724 a...

Purity: >98%
Clinical Data: Phase 3
Size: 1 mg, 5 mg, 10 mg, 20 mg

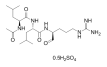


Leupeptin hemisulfate

Cat. No.: HY-18234A

Bioactivity: Leupeptin hemisulfate is a reversible, competitive **serine/cysteine protease** inhibitor.

Purity: 98.00%
Clinical Data: No Development Reported
Size: 10mM x 1mL in Water, 5 mg, 10 mg

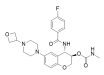


LY 3000328

Cat. No.: HY-15533

Bioactivity: LY 3000328 is a potent and selective **Cathepsin S (Cat S)** inhibitor with **IC_{50}**s of 7.7 and 1.67 nM for hCat S and mCat S, respectively.

Purity: 99.35%
Clinical Data: Phase 1
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg

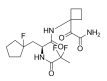


MIV-247

Cat. No.: HY-112583

Bioactivity: MIV-247 is a selective **cathepsin S** inhibitor with **K_I**s of 2.1, 4.2 and 7.5 nM for human, mouse and cynomolgus monkey cathepsin S, respectively.

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

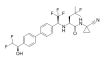


MK-0674

Cat. No.: HY-10290

Bioactivity: MK-0674 is a potent, orally bioavailable and selective **cathepsin K** inhibitor, with an **IC_{50}** of 0.4 nM, shows 1156, 1465, 11857 and 243 fold selectivity over Cat B, Cat F, Cat L and Cat S [1].

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

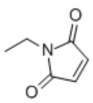


N-Ethylmaleimide (NEM)

Cat. No.: HY-D0843

Bioactivity: N-Ethylmaleimide (NEM) is a **cysteine protease** inhibitor [1]. N-ethylmaleimide specific inhibits phosphate transport in mitochondria [2].

Purity: 99.67%
Clinical Data: No Development Reported
Size:

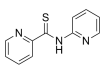


NSC 185058

Cat. No.: HY-125169

Bioactivity: NSC 185058 is an inhibitor of **ATG4B**, a major **cysteine protease**. NSC185058 markedly attenuates **autophagic** activity [1].

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

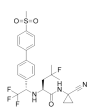


Odanacatib (MK-0822)

Cat. No.: HY-10042

Bioactivity: Odanacatib (MK-0822) is a potent and selective inhibitor of **cathepsin K**, with an **IC_{50}** of 0.2 nM for human cathepsin K.

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



Papain

Cat. No.: HY-P1645

Bioactivity: Papain is a cysteine protease of the peptidase C1 family, which is used in food, pharmaceutical, textile, and cosmetic industries.

Purity:
Clinical Data: No Development Reported
Size: 100 mg

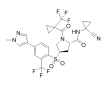
Papain

Petesicatib

Cat. No.: HY-109069

Bioactivity: Petesicatib is a **cathepsin S** inhibitor, used in research of immune diseases [1].

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

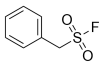


PMSF

(Phenylmethylsulfonyl fluoride; Benzylsulfonyl fluoride) **Cat. No.:** HY-B0496

Bioactivity: PMSF is an irreversible **serine/cysteine protease** inhibitor commonly used in the preparation of cell lysates.

Purity: 99.0%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 100 mg, 500 mg, 5 g, 10 g

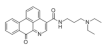


S130

Cat. No.: HY-112818

Bioactivity: S130 is a high affinity, selective inhibitor of **ATG4B** (a major cysteine protease) with an **IC_{50}** of 3.24 μM. S130 suppresses autophagy flux [1].

Purity: >98%
Clinical Data: No Development Reported
Size: 250 mg, 100 mg, 500 mg



VBY-825

Cat. No.: HY-15958

Bioactivity: VBY-825 is a novel, reversible cathepsin inhibitor with high potency against cathepsins B, L, S and V.

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