Xevinapant hydrochloride

Cat. No.: HY-13208

CAS No.: 1071992-57-8

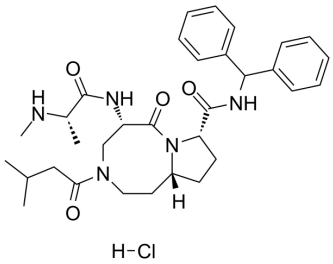
Molecular Formula: $C_{32}H_{44}ClN_5O_4$

Molecular Weight: 598.18

Target: IAP

Pathway: Apoptosis

Storage: -20°C, sealed storage, away from moisture and light
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 175 mg/mL (292.55 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	1.6717 mL	8.3587 mL	16.7174 mL
	5 mM	0.3343 mL	1.6717 mL	3.3435 mL
	10 mM	0.1672 mL	0.8359 mL	1.6717 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 8.75 mg/mL (14.63 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 8.75 mg/mL (14.63 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 8.75 mg/mL (14.63 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

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. Xevinapant hydrochloride effectively antagonizes XIAP BIR3 protein in a cell-free functional assay, induces rapid degradation of cellular cIAP1 protein, and inhibits cancer cell growth in various human cancer cell lines. Xevinapant hydrochloride is highly effective in induction of apoptosis in xenograft tumors[1][2].

IC_{50} & Target			
	cIAP1	cIAP2	XIAP
	1.9 nM (Ki)	5.1 nM (Ki)	66.4 nM (Ki)

In Vitro	Xevinapant (AT-406) hydrochloride potently inhibits cell growth in the MDA-MB-231 breast and SK-OV-3 ovarian cancer cell lines with IC_{50}=144 nM and 142 nM, respectively.Xevinapant (0-3 μM; 0-48 horus) hydrochloride effectively induces cell death in a time- and dose-dependent manner[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Xevinapant (AT-406) hydrochloride is very effective in inhibition of tumor growth in the MDA-MB-231 xenograft model, and has minimal toxicity to animals[1]. Xevinapant hydrochloride evaluated for its pharmacokinetic (PK) properties in mice, rats, non-human primates and dogs[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	SCID mice bearing MDA-MB-231 xenograft tumors[1]
Dosage:	30 and 100 mg/kg
Administration:	p.o.; 5 days a week for 2 weeks
Result:	Strongly inhibits tumor growth at 30 and 100 mg/kg and completely inhibits tumor growth during the treatment with 100 mg/kg.

CUSTOMER VALIDATION

- J Med Chem. 2019 Oct 24;62(20):9188-9200.
- Biochim Biophys Acta Mol Basis Dis. 2019 Jun 26;1865(10):2618-2632.
- Viruses. 2021, 13(12), 2490.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Cai Q, Sun H, Peng Y, et al. A potent and orally active antagonist (SM-406/AT-406) of multiple inhibitor of apoptosis proteins (IAPs) in clinical development for cancer treatment. J Med Chem. 2011;54(8):2714-2726.

[2]. Brunckhorst MK, et al. AT-406, an orally active antagonist of multiple inhibitor of apoptosis proteins, inhibits progression of human ovarian cancer. Cancer Biol Ther. 2012;13(9):804-811.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA