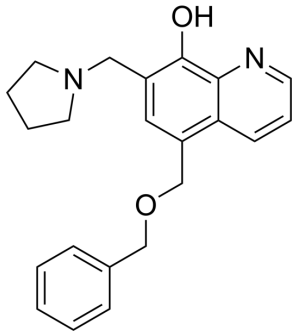
UC-112

Cat. No.:	HY-12842		
CAS No.:	383392-66-3		
Molecular Formula:	$C_{22}H_{24}N_2O_2$		
Molecular Weight:	348.44		
Target:	IAP; Apoptosis		
Pathway:	Apoptosis		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 33.33 mg/mL (95.65 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.8699 mL	14.3497 mL	28.6993 mL
	5 mM	0.5740 mL	2.8699 mL	5.7399 mL
	10 mM	0.2870 mL	1.4350 mL	2.8699 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: ≥ 2.5 mg/mL (7.17 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 2.5 mg/mL (7.17 mM); Suspended solution; Need ultrasonic
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (7.17 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

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).IC50 value: 0.7-3.4 uM (Cell assay) [1]Target: IAP inhibitorin vitro: UC-112 also potently inhibits the growth of P-glycoprotein (P-gp)-overexpressed multidrug-resistant cancer cells, strongly activates caspase-3/7 and caspase-9 activities, and selectively downregulates survivin level at a concentration as low as 1 μM. Coincubation of UC-112 with a known proteasome inhibitor Z-Leu-Leu-Leu-CHO (MG-132) rescued survivin inhibition, consistent with the anticipated mechanism of action for UC-112 [1].in vivo: As a single agent, UC-112 strongly inhibits tumor growth and reduces both X chromosome-linked IAP and survivin levels in an A375 human

melanoma xenograft model in vivo [1].

REFERENCES

[1]. Wang J, et al. Discovery of novel second mitochondria-derived activator of caspase mimetics as selective inhibitor of apoptosis protein inhibitors. J Pharmacol Exp Ther. 2014 May;349(2):319-29.

[2]. Qinghui Wang, et al. Synthesis and biological evaluation of indole-based UC-112 analogs as potent and selective survivin inhibitors. Eur J Med Chem

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