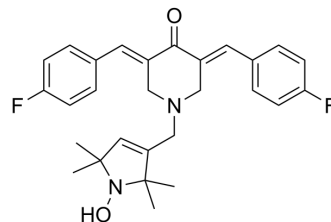


HO-3867

Cat. No.:	HY-100453		
CAS No.:	1172133-28-6		
Molecular Formula:	C ₂₈ H ₃₀ F ₂ N ₂ O ₂		
Molecular Weight:	464.55		
Target:	STAT; Apoptosis		
Pathway:	JAK/STAT Signaling; Stem Cell/Wnt; Apoptosis		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 32 mg/mL (68.88 mM)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	2.1526 mL	10.7631 mL	21.5262 mL
	5 mM	0.4305 mL	2.1526 mL	4.3052 mL
	10 mM	0.2153 mL	1.0763 mL	2.1526 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
 Solubility: 2.5 mg/mL (5.38 mM); Suspended solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 2.5 mg/mL (5.38 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

HO-3867 is a selective and potent STAT3 inhibitor and shows good antitumor activity.

IC₅₀ & Target

STAT3

In Vitro

HO-3867 exhibit minimal toxicity toward noncancerous cells and tissues but induce apoptosis in ovarian cancer cells. HO-3867 inhibit cell migration/invasion and survival by inhibiting STAT3 phosphorylation^[1]. BRCA-mutated ovarian cancer cells treated with HO-3867 exhibited a significant degree of apoptosis with elevated levels of cleaved caspase-3, caspase-7 and PARP^[2]. HO-3867 shows good antitumor activity at the concentration of 2 μmol/L in PANC-1 and BXPC-3 cells. Importantly, it is also

found that HO-3867 treatment significantly induced reactive oxygen species (ROS) production in human pancreatic cancer cell lines, inducing PANC-1 and BXP-3 cells^[3].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Cell Death Dis. 2021 Dec 20;13(1):16.
- JCI Insight. 2018 Sep 6;3(17). pii: 120750.
- Int J Mol Sci. 2019 Aug 27;20(17):4202.
- J Cancer. 2020 Apr 6;11(13):3736-3744.
- Research Square Preprint. 2023 Jul 31.

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REFERENCES

[1]. Rath KS et al. HO-3867, a safe STAT3 inhibitor, is selectively cytotoxic to ovarian cancer. *Cancer Res.* 2014 Apr 15;74(8):2316-27.

[2]. Tierney BJ et al. HO-3867, a STAT3 inhibitor induces apoptosis by inactivation of STAT3 activity in BRCA1-mutated ovarian cancer cells. *Cancer Biol Ther.* 2012 Jul;13(9):766-75

[3]. Hu Y, et al. A novel STAT3 inhibitor HO-3867 induces cell apoptosis by reactive oxygen species-dependent endoplasmic reticulum stress in human pancreatic cancer cells. *Anticancer Drugs.* 2017 Apr;28(4):392-400.

Caution: Product has not been fully validated for medical applications. For research use only.

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