**Proteins** 

# **ACY-957**

Cat. No.: HY-104008 CAS No.: 1609389-52-7 Molecular Formula:  $C_{24}H_{23}N_{5}OS$ Molecular Weight: 429.54 HDAC Target:

Pathway: Cell Cycle/DNA Damage; Epigenetics

Storage: Powder

2 years

3 years

-80°C In solvent 2 years

-20°C

-20°C 1 year

**Product** Data Sheet

## **SOLVENT & SOLUBILITY**

In Vitro

DMSO: 83.33 mg/mL (194.00 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	2.3281 mL	11.6404 mL	23.2807 mL
	5 mM	0.4656 mL	2.3281 mL	4.6561 mL
	10 mM	0.2328 mL	1.1640 mL	2.3281 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: ≥ 2.08 mg/mL (4.84 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (4.84 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (4.84 mM); Clear solution

# **BIOLOGICAL ACTIVITY**

Description ACY-957 is an orally active and selective inhibitor of HDAC1 and HDAC2, with  $IC_{50}$ s of 7 nM, 18 nM, and 1300 nM against

HDAC1/2/3, respectively, and shows no inhibition on HDAC4/5/6/7/8/9<sup>[1]</sup>.

HDAC1 HDAC2 IC<sub>50</sub> & Target HDAC3

> 7 nM (IC<sub>50</sub>) 18 nM (IC<sub>50</sub>) 1300 nM (IC<sub>50</sub>)

In Vitro ACY-957 is a selective inhibitor of HDAC1 and HDAC2, with IC $_{50}$ s of 7 nM, 18 nM, and 1300 nM against HDAC1/2/3, respectively, and shows no inhibition on HDAC4/5/6/7/8/9. ACY-957 has an IC $_{50}$  of 304 nM for HDAC2 in primary hematopoietic progenitors<sup>[1]</sup>.

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

# **CUSTOMER VALIDATION**

• J Virol. 2020 Jul 1;94(14):e00262-20.

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### **REFERENCES**

[1]. Shearstone JR, et al. Chemical Inhibition of Histone Deacetylases 1 and 2 Induces Fetal Hemoglobin through Activation of GATA2. PLoS One. 2016 Apr 13;11(4):e0153767.

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

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