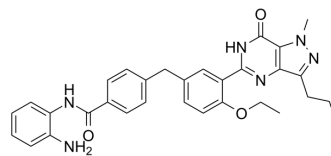


CM-675

Cat. No.:	HY-114303		
CAS No.:	1872466-47-1		
Molecular Formula:	C ₃₁ H ₃₂ N ₆ O ₃		
Molecular Weight:	536.62		
Target:	Phosphodiesterase (PDE); HDAC		
Pathway:	Metabolic Enzyme/Protease; Cell Cycle/DNA Damage; Epigenetics		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 25 mg/mL (46.59 mM); ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	1.8635 mL	9.3176 mL	18.6352 mL
	5 mM	0.3727 mL	1.8635 mL	3.7270 mL
	10 mM	0.1864 mL	0.9318 mL	1.8635 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 1.25 mg/mL (2.33 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 1.25 mg/mL (2.33 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

CM-675 is a dual phosphodiesterase 5 (PDE5) and class I histone deacetylases-selective inhibitor, with IC₅₀ values of 114 nM and 673 nM for PDE5 and HDAC1, respectively. CM-675 has potential to treat Alzheimer's disease^[1].

IC₅₀ & Target

HDAC1 673 nM (IC ₅₀ , 30 min (time-dependent))	PDE5 114 nM nM (IC ₅₀)
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In Vitro

CM-675 (29a) shows a significant time-dependent effect on class I HDAC inhibition, particularly towards HDAC2. For HDAC1, its inhibitory potency also increased significantly (~1 log unit) with the pre-incubation time: 673 nM (30 min), 180 nM (4 hours) and 69 nM (6 hours) ^[1].

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

REFERENCES

[1]. Rabal O, et al. Discovery of in Vivo Chemical Probes for Treating Alzheimer's Disease: Dual Phosphodiesterase 5 (PDE5) and Class I Histone Deacetylase Selective Inhibitors. ACS Chem Neurosci. 2019 Mar 20;10(3):1765-1782.

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

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