

CM-675

Chemical Properties

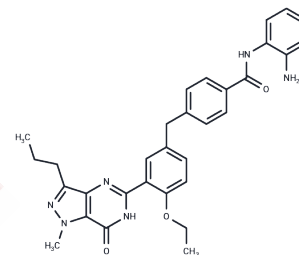
CAS No. : 1872466-47-1

Formula: C₃₁H₃₂N₆O₃

Molecular Weight: 536.62

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	CM-675 is a dual inhibitor of phosphodiesterase 5 (PDE5) and class I histone deacetylases (IC ₅₀ s: 114 nM and 673 nM for PDE5 and HDAC1) with the potential to treat Alzheimer's disease.
Targets(IC ₅₀)	HDAC,PDE
In vitro	CM-675 (29a) demonstrates a pronounced time-dependent inhibitory effect on class I HDACs, particularly HDAC2. Its potency against HDAC1 also significantly enhances over time, showing increased inhibition (~1 log unit) at varying pre-incubation intervals: 673 nM at 30 minutes, 180 nM at 4 hours, and 69 nM at 6 hours[1].

Solubility Information

Solubility	DMSO: 150 mg/mL (279.53 mM),Sonication and heating to 60°C are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 1 mg/mL (1.86 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.8635 mL	9.3176 mL	18.6352 mL
5 mM	0.3727 mL	1.8635 mL	3.727 mL
10 mM	0.1864 mL	0.9318 mL	1.8635 mL
50 mM	0.0373 mL	0.1864 mL	0.3727 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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