

BRD6688

## Chemical Properties

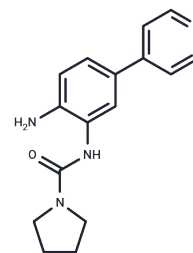
CAS No. : 1404562-17-9

Formula: C<sub>16</sub>H<sub>18</sub>N<sub>4</sub>O

Molecular Weight: 282.34

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	BRD6688 is a selective HDAC2 inhibitor that acts by enhancing the learning and memory processes
Targets(IC50)	HDAC
In vivo	Mouse in-vivo study showed that BRD6688 was able to increase the histone acetylation (H4K12 and H3K9) in hippocampal CA1 neurons of CK-p25 mice. Moreover, the increased histone acetylation in brain served as a surrogate pharmacodynamic marker of HDAC engagement and was consistent with previously observed brain pharmacokinetic properties. In addition, BRD6688 rescued the cognitive deficits in CK-p25 mice, a model of neurodegeneration, in a Pavlovian fear conditioning behavioral assay[1].

## Solubility Information

Solubility	Ethanol: ≤2 mg/mL, Sonication is recommended. dimethyl formamide: 30 mg/mL (106.25 mM), Sonication is recommended. DMSO: 50 mg/mL (177.09 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (7.08 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

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	1mg	5mg	10mg
1 mM	3.5418 mL	17.7091 mL	35.4183 mL
5 mM	0.7084 mL	3.5418 mL	7.0837 mL
10 mM	0.3542 mL	1.7709 mL	3.5418 mL
50 mM	0.0708 mL	0.3542 mL	0.7084 mL

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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

Kinetically selective inhibitors of histone deacetylase 2 (HDAC2) as cognition enhancers[J]. Chemical Science, 2014, 6(1):804-815.

Wang X M , Pan G , Saligan L , et al. Dysregulation of EAAT2 and VGLUT2 spinal glutamate transports via histone deacetylase 2(HDAC2) contributes to paclitaxel-induced painful neuropathy. 2020.

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