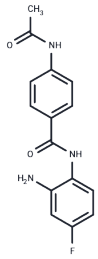
Data Sheet (Cat.No.T8233)

TargetMol

BRD3308

Chemical Properties



CAS No. : 1550053-02-5

Formula: C15H14FN3O2

Molecular Weight: 287.29

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	BRD3308 is a highly selective inhibitor of HDAC3(IC50 of 54 nM), attenuating PE-mediated phosphorylation of ERK but not JNK.
Targets(IC50)	Apoptosis,HIV Protease,HDAC
In vivo	BRD3308 is a selective HDAC3 inhibitor,to reduce hyperglycaemia and increase insulin secretion in a rat model of type 2 diabetes.?At diabetes onset, an ambulatory hyperglycaemic clamp was performed.?HDAC3 inhibition improved hyperglycaemia over the study period without affecting weight gain.?At the end of the hyperglycaemic clamp, circulating insulin levels were significantly higher in BRD3308-treated rats.?Pancreatic insulin staining and contents were also significantly higher.?These findings highlight HDAC3 as a key therapeutic target for β-cell protection in type 2 diabetes[1].
Animal Research	Male Zucker Diabetic Fatty (Obese) rats (6-week-old); 5 mg/kg; Intraperitoneal injection; every second day

Solubility Information

Solubility	DMSO: 41.67 mg/mL (145.05 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: < 4.17 mg/mL (14.51 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 4.17 mg/mL (14.51 mM),Solution. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.4808 mL	17.404 mL	34.808 mL
5 mM	0.6962 mL	3.4808 mL	6.9616 mL
10 mM	0.3481 mL	1.7404 mL	3.4808 mL
50 mM	0.0696 mL	0.3481 mL	0.6962 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

Lundh M, et al. Histone deacetylase 3 inhibition improves glycaemia and insulin secretion in obese diabetic rats. Diabetes Obes Metab. 2015 Jul;17(7):703-7.

Wagner FF, et al. An Isochemogenic Set of Inhibitors To Define the Therapeutic Potential of Histone Deacetylases in β-Cell Protection. ACS Chem Biol. 2016 Feb 19;11(2):363-74.