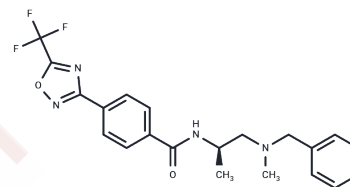


NT160

## Chemical Properties

CAS No. : 1418293-40-9  
 Formula: C<sub>21</sub>H<sub>21</sub>F<sub>3</sub>N<sub>4</sub>O<sub>2</sub>  
 Molecular Weight: 418.41  
 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	NT160 is a fluorinated radioactive compound, a potent class IIa histone deacetylase (HDAC) inhibitor, used in the study of neurological diseases.
Targets(IC50)	HDAC
In vitro	NT160 is a highly effective Class IIa HDAC inhibitor with an IC <sub>50</sub> value of 0.046 μM. NT160 showed very high inhibition on HDAC4, HDAC5, HDAC7 and HDAC9, with IC <sub>50</sub> values of 0.08 nM, 1.2 nM, 1.0 nM and 0.9 nM, respectively. [1]
In vivo	NT160 was able to penetrate the blood-brain barrier and accumulate in the brains of mice. [1]

## Solubility Information

Solubility	DMSO: 80 mg/mL (191.2 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: 3.3 mg/mL (7.89 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	2.390 mL	11.950 mL	23.900 mL
5 mM	0.478 mL	2.390 mL	4.780 mL
10 mM	0.239 mL	1.195 mL	2.390 mL
50 mM	0.0478 mL	0.239 mL	0.478 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

Turkman N, et al. Design, synthesis, biochemical evaluation, radiolabeling and in vivo imaging with high affinity class-IIa histone deacetylase inhibitor for molecular imaging and targeted therapy. *Eur J Med Chem.* 2022 Jan 15; 228:114011.

Turkman N, et al. High-Contrast PET Imaging with [18F]NT160, a Class-IIa Histone Deacetylase Probe for In Vivo Imaging of Epigenetic Machinery in the Central Nervous System. *J Med Chem.* 2023 Apr 27;66(8):5611-5621.

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