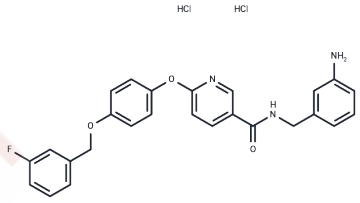
Data Sheet (Cat.No.T39195)

TargetMol

YM-244769 dihydrochloride

Chemical Properties



CAS No. : 1780390-65-9

Formula: C26H24Cl2FN3O3

Molecular Weight: 516.39

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	YM-244769 dihydrochloride is an effective inhibitor of Na+/Ca2+ exchange 3 (NCX3) with an IC50 of 18 nM. YM-244769 dihydrochloride has efficient protective effects on neurons and kidneys.
Targets(IC50)	Calcium Channel,Na+/Ca2+ Exchanger
In vitro	YM-244769 dihydrochloride (0.3 or 1 μM) efficiently suppresses the hypoxia/reoxygenation-induced cell damage in SH-SY5Y cells treated with NCX1 antisense (i.e., SH-SY5Y cells primarily expressing NCX3) more than in those treated with NCX3 antisense (i.e., SH-SY5Y cells primarily expressing NCX1). YM-244769 dihydrochloride (0.003-1 μM) inhibits the initial rates of 45 Ca 2+ uptake into NCX1, NCX2, and NCX3 transfectants with IC 50 values of 68±2.9, 96±3.5, and 18±1.0 nM, respectively, indicating that YM-244769 dihydrochloride is approximately four to five times more selective to NCX3 than other isoforms[1].

Solubility Information

Solubility	DMSO: 95 mg/mL (183.97 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.9365 mL	9.6826 mL	19.3652 mL
5 mM	0.3873 mL	1.9365 mL	3.873 mL
10 mM	0.1937 mL	0.9683 mL	1.9365 mL
50 mM	0.0387 mL	0.1937 mL	0.3873 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

Takahiro Iwamoto, et al. YM-244769, a Novel Na + /Ca 2+ Exchange Inhibitor That Preferentially Inhibits NCX3, Efficiently Protects Against hypoxia/reoxygenation-induced SH-SY5Y Neuronal Cell Damage. Mol Pharmacol. 2006 Dec;70(6):2075-83.