Data Sheet (Cat.No.T78164)

TargetMol

JBSNF-000028 hydrochloride

Chemical Properties

CAS No. :

Formula: C11H14ClN3

Molecular Weight: 223.7

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	JBSNF-000028 hydrochloride is a potent inhibitor of nicotinamide N-methyltransferase (NNMT) with IC50 values of 0.033 μM for human NNMT (hNNMT), 0.19 μM for monkey NNMT (mkNNMT), and 0.21 μM for mouse NNMT (mNNMT). This orally active compound is utilized in the study of metabolic disorders [1].
Targets(IC50)	Others
In vitro	JBSNF-000028 hydrochloride demonstrates selective inhibition of NNMT activity, achieving an EC50 of 2.5 μM in U2OS cells (24 h) without exhibiting cytotoxic effects on HepG2 cells at concentrations ranging from 10 to 100 μM over a 72-hour period [1]. The compound specifically interacts with the nicotinamide pocket beneath a hairpin structural motif, intercalating between Tyr-204 (from Hairpin) and Leu-164 (from the central domain) [1]. Moreover, JBSNF-000028 hydrochloride shows no activity against a wide array of metabolic and safety-related targets [1].
In vivo	JBSNF-000028 hydrochloride, administered orally at a dosage of 50 mg/kg twice daily, enhances glucose and lipid metabolism over a 27-day treatment in mice with diet-induced obesity (DIO) and improves glucose tolerance in NNMT knockout mice with DIO when given for 4 weeks [1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.4703 mL	22.3514 mL	44.7027 mL
5 mM	0.8941 mL	4.4703 mL	8.9405 mL
10 mM	0.447 mL	2.2351 mL	4.4703 mL
50 mM	0.0894 mL	0.447 mL	0.8941 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.