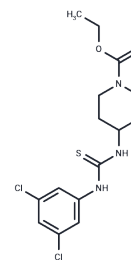


TT01001

Chemical Properties

CAS No. : 1022367-69-6
 Formula: C₁₅H₁₉Cl₂N₃O₂S
 Molecular Weight: 376.3
 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	TT01001 (Ethyl 4-(3-(3,5-dichlorophenyl)thioureido)piperidine-1-carboxylate) is a selective agonist of mitoNEET and reduces oxidative stress injury and neuronal apoptosis by improving mitochondrial dysfunction. TT01001 can be used in studies about the treatment of type II diabetes.
Targets(IC50)	Apoptosis, Reactive Oxygen Species, Mitochondrial Metabolism, ROS
In vivo	In type II diabetes model db/db mice, TT01001 improved hyperglycemia, hyperlipidemia, and glucose intolerance, and its efficacy was equivalent to that of pioglitazone, without the pioglitazone-associated weight gain. Mitochondrial complex II + III activity of the skeletal muscle was significantly increased in db/db mice. TT01001 significantly suppressed the elevated activity of the complex II + III[2].

Solubility Information

Solubility DMSO: 55 mg/mL (146.16 mM), Sonication is recommended.
 (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6575 mL	13.2873 mL	26.5745 mL
5 mM	0.5315 mL	2.6575 mL	5.3149 mL
10 mM	0.2657 mL	1.3287 mL	2.6575 mL
50 mM	0.0531 mL	0.2657 mL	0.5315 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

Shi G, et al. TT01001 attenuates oxidative stress and neuronal apoptosis by preventing mitoNEET-mediated mitochondrial dysfunction after subarachnoid hemorrhage in rats. *Neuroreport*. 2020 Aug 5;31(11):845-850.

Takahashi T, et al. A novel MitoNEET ligand, TT01001, improves diabetes and ameliorates mitochondrial function in db/db mice. *J Pharmacol Exp Ther*. 2015 Feb;352(2):338-45.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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