

Tislagiline

Chemical Properties

CAS No. : 1894207-44-3

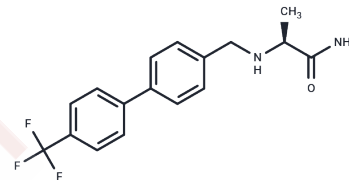
Formula: C17H17F3N2O

Molecular Weight: 322.33

Keep away from direct sunlight

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	Tislagiline (KDS2010) is a potent, highly selective and reversible MAO-B inhibitor with IC ₅₀ =8 nM and oral activity for the treatment of Alzheimer's disease and obesity.
Targets(IC ₅₀)	MAO, Monoamine Oxidase
In vitro	Tislagiline demonstrated high potency in inhibiting MAO-B in human cell assays, with an IC ₅₀ of 8.0 nM, showing over 1,250-fold selectivity for MAO-B over MAO-A[1].
In vivo	In a MPTP-induced Parkinson's disease mouse model, oral administration of Tislagiline (10 mg/kg/day for 5 days) significantly protected dopaminergic neurons in the substantia nigra and improved motor function. Furthermore, chronic administration in non-human primates (cynomolgus monkeys) showed favorable pharmacokinetics and safety at doses up to 100 mg/kg/day for 4 weeks, with reversible MAO-B inhibition and no significant adverse effects observed[1].

Solubility Information

Solubility	DMSO: 80 mg/mL (248.19 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 3.3 mg/mL (10.24 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

	1mg	5mg	10mg
1 mM	3.1024 mL	15.5121 mL	31.0241 mL
5 mM	0.6205 mL	3.1024 mL	6.2048 mL
10 mM	0.3102 mL	1.5512 mL	3.1024 mL
50 mM	0.062 mL	0.3102 mL	0.6205 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

Nam MH, et al. KDS2010, a Newly Developed Reversible MAO-B Inhibitor, as an Effective Therapeutic Candidate for Parkinson's Disease. *Neurotherapeutics*. 2021 Jul;18(3):1729-1747.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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