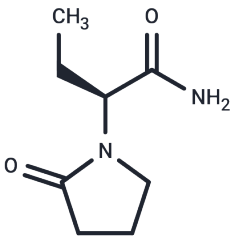
Data Sheet (Cat.No.T0192)

TargetMol

Levetiracetam

Chemical Properties



CAS No. : 102767-28-2

Formula: C8H14N2O2

Molecular Weight: 170.21

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	Levetiracetam (SIB-S1) is a relatively unique anticonvulsant that is typically used in combination with other antiepileptic medications for partial onset seizures. Levetiracetam has been linked to rare instances of serum aminotransferase and alkaline phosphatase elevations during treatment and to rare cases of clinically apparent drug induced liver disease.
Targets(IC50)	Calcium Channel,DNA Methyltransferase
In vitro	In a cellular assay, CNX-774 targeted residue Cys-481, the ATP-binding site of BTK, thereby inhibiting its activity (IC50: 1-10 nM).
In vivo	In a cellular assay, CNX-774 targeted residue Cys-481, the ATP-binding site of BTK, thereby inhibiting its activity (IC50: 1-10 nM).
Kinase Assay	EDTA plasma (20 μL) is diluted with 30 μL of DPP-4 assay buffer (100 mM Tris and 100 mM NaCl, adjusted to pH 7.8 with HCl) and mixed with 50 μL of H-Ala-Pro-7-amido-4-trifluoromethylcoumarin. The 200 mM stock solution in dimethylformamide is diluted 1: 1000 with water to yield a final concentration of 100 μM. The plate is incubated at room temperature for 10 min, and fluorescence in the wells is determined by using a Victor 1420 Multilabel Counter at an excitation wavelength of 405 nm and an emission wavelength of 535 nm. For the detection of DPP-4 activity in wound lysates, 100 μg of protein from the respective wound lysates are used instead of 20 μL of plasma. Active GLP-1 is also detected from 100 μg of respective wound tissue samples and analyzed by using the Mouse/Rat Total Active GLP-1 Assay Kit.

Solubility Information

Solubility	DMSO: 121.25 mg/mL (712.36 mM),Sonication is recommended. H2O: 17 mg/mL (99.88 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: 2 mg/mL (11.75 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.8751 mL	29.3755 mL	58.751 mL
5 mM	1.175 mL	5.8751 mL	11.7502 mL
10 mM	0.5875 mL	2.9375 mL	5.8751 mL
50 mM	0.1175 mL	0.5875 mL	1.175 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

Gigant B, et al. Nature, 2005, 435(7041), 519-522.
Lukyanetz EA, et al. Epilepsia, 2002, 43(1), 9-18.
Rigo JM, et al. Br J Pharmacol, 2002, 136(5), 659-672.
Löscher W, et al. J Pharmacol Exp Ther, 1998, 284(2), 474-479.
Gower AJ, et al. Epilepsy Res, 1995, 22(3), 207-213.