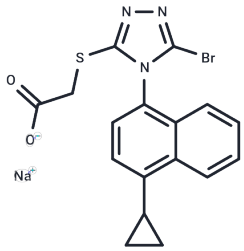
Data Sheet (Cat.No.T21301)

TargetMol

Lesinurad sodium

Chemical Properties



CAS No. : 1151516-14-1

Formula: C17H13BrN3NaO2S

Molecular Weight: 426.26

Storage: Store at low temperature
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	Lesinurad sodium (RDEA594 sodium) is a selective inhibitor of uric acid reabsorption and is used in the study of cardiovascular diseases.
Targets(IC50)	OAT
In vitro	Lesinurad sodium is a novel selective uric acid reabsorption inhibitor (SURI). Lesinurad was found to be a substrate for the renal transporter proteins organic anion transporter protein (OAT1) and OAT3 with Mie constants (Km) of 0.85 μM and 2 μM, respectively.[1] Lesinurad sodium (RDEA594) acts as an inhibitor of URAT1 and OAT and promotes uric acid excretion in the proximal renal tubules. [2] Lesinurad sodium has the potential to be a uric acid-lowering drug by inhibiting uric acid reabsorption and has demonstrated excellent P450 metabolic properties, with IC50s of 14.4 μM for CYP2C9 and 16.2 μM for CYP2C8 and IC50s of more than 100 μM for CYP1A2, CYP2C19, and CYP2D6.[3]
In vivo	Lesinurad sodium demonstrated superior pharmacokinetic properties compared to its predecessor, RDEA806, with a 100 mg dose of Lesinurad sodium producing pharmacologic effects equivalent to a single dose of 300 mg to 800 mg of RDEA806.[3] The pharmacokinetics of Lesinurad sodium were similar to those of RDEA806, which was administered as a single dose of 100 mg. [3]

Solubility Information

Solubility	DMSO: 80 mg/mL (187.68 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3.3 mg/mL (7.74 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	2.346 mL	11.7299 mL	23.4599 mL
5 mM	0.4692 mL	2.346 mL	4.692 mL
10 mM	0.2346 mL	1.173 mL	2.346 mL
50 mM	0.0469 mL	0.2346 mL	0.4692 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

Jin H, et al. Cross-cultural studies of dementia: use of a Chinese version of the Blessed-Roth Information-Memory-Concentration test in a Shanghai dementia survey. Psychol Aging. 1989 Dec;4(4):471-9.
Sattui SE, et al. Treatment of hyperuricemia in gout: current therapeutic options, latest developments and clinical implications. Ther Adv Musculoskelet Dis. 2016 Aug;8(4):145-59.
L.Yeh, et al. RDEA594, a potential uric acid lowering agent througn inhibition of uric acid reuptake ,shows better pharmacokinetics rhan its prodrug RDEA806. 2008 ACR/ARHP Annual Scientific Meeting, 24-29 October 2008, USA.
Shen Z, et al. Pharmacokinetics, pharmacodynamics, and safety of lesinurad, a selective uric acid reabsorption inhibitor, in healthy adult males. Drug Des Devel Ther. 2015 Jul 2;9:3423-34.