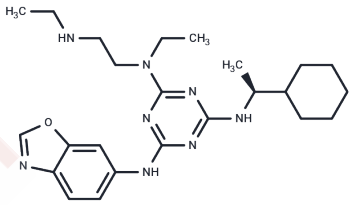
Data Sheet (Cat.No.T11879)

TargetMol

LS-102

Chemical Properties



CAS No. : 1456891-34-1

Formula: C24H36N8O

Molecular Weight: 452.6

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	LS-102 is a selective inhibitor of the E3 ligase synoviolin (Syvn1), an astragaloside IV derivative, which attenuates myocardial ischemia/reperfusion injury by inhibiting mitochondrial fission.LS-102 inhibits Syvn1 auto-ubiquitylation, which ameliorates amyloidazole-induced slowing of the heart rate, and is useful for studying cardiovascular diseases.
Targets(IC50)	E1/E2/E3 Enzyme
In vitro	In rheumatoid synovial cells (RSCs), LS-102 (20, 40, 60 μM; 12 hours) inhibited the proliferation of RSCs with an IC50 of 5.4 μM[1].
In vivo	LS-102 (1.3-4 mg/kg; i.p.; daily for 4 weeks) reduces clinical severity scores in a CIA model [1].

Solubility Information

Solubility	DMSO: 80 mg/mL (176.76 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: 3.3 mg/mL (7.29 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	2.2095 mL	11.0473 mL	22.0946 mL
5 mM	0.4419 mL	2.2095 mL	4.4189 mL
10 mM	0.2209 mL	1.1047 mL	2.2095 mL
50 mM	0.0442 mL	0.2209 mL	0.4419 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

Yagishita N, et al. RING-finger type E3 ubiquitin ligase inhibitors as novel candidates for the treatment of rheumatoidarthritis. Int J Mol Med. 2012 Dec;30(6):1281-6.
Fujita H, et al. Identification of the inhibitory activity of walnut extract on the E3 ligase Syvn1. Mol Med Rep. 2018 Dec;18(6):5701-5708.