Data Sheet (Cat.No.T38096)

TargetMol

MLT-231

Chemical Properties

CAS No. :

Formula:

Molecular Weight:

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	MLT-231, a potent and highly selective allosteric MALT1 inhibitor, has an IC50 of 9 nM and specifically inhibits endogenous BCL10 cleavage with an IC50 of 160 nM. It exhibits antitumor activity in an ABC-DLBCL type xenograft mouse model[1].
Targets(IC50)	MALT,Others
In vitro	MLT-231 (19.5-10000 nM) inhibits OCI-Ly3 cell proliferation and, at concentrations of 50-5000 nM for 24 hours, causes accumulation of the uncleaved substrates CYLD, BCL10, and RELB, while suppressing the NF-κB target gene IRF4[1].
In vivo	MLT-231 (10-100 mg/kg; p.o.; bid schedule for 2 weeks) demonstrates in vivo efficacy in the ABC-DLBCL xenograft model[1]. MLT-231 (1 mg/kg; i.v.; BALB/c mice) treatment shows a CL of 11 mL/min/kg, t1/2 of 1.9 hours, and Vss of 1.5 L/kg[1]. In Sprague-Dawley rats, MLT-231 (1 mg/kg; i.v.) shows a CL of 41 mL/min/kg, t1/2 of 3.2 hours, and Vss of 9.4 L/kg[1]. MLT-231 (3 mg/kg; p.o.; BALB/c mice) treatment reveals an AUC0-24 of 3096 nM/h, Cmax of 549 nM, and F of 99%[1]. In Sprague-Dawley rats, MLT-231 (3 mg/kg; p.o.) shows an AUC0-24 of 547 nM/h, Cmax of 46 nM, and F of 61%[1].

Solubility Information

Solubility	DMSO: 110 mg/mL,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: 5 mg/mL,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.*

Reference

Pissot Soldermann C, et al. Discovery of Potent, Highly Selective, and In Vivo Efficacious, Allosteric MALT1 Inhibitors by Iterative Scaffold Morphing [published online ahead of print, 2020 Nov 30]. J Med Chem. 2020;10.1021/acs.jmedchem.0c01245.

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