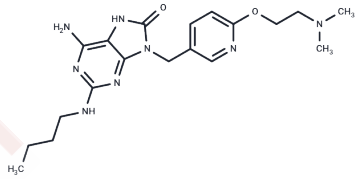
Data Sheet (Cat.No.T11108)

TargetMol

DSR-6434

Chemical Properties



CAS No. : 1059070-10-8

Formula: C19H28N8O2

Molecular Weight: 400.48

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	DSR-6434 is a selective agonist of TLR7 with antitumor effect. DSR-6434 exhibits EC50s of 7.2 nM and 4.6 nM for human and mouse.
Targets(IC50)	TLR
In vitro	To evaluate the specificity of DSR-6434 for TLR7, a NF-κB-driven reporter assay was conducted in HEK293 cells engineered to express hTLR7, TLR8, or TLR9. This assay determines specificity through NF-κB activation upon successful receptor binding. Results demonstrate that DSR-6434 selectively stimulates reporter gene activity in cells expressing hTLR7, but not in those expressing the structurally similar hTLR8 or hTLR9[1].
In vivo	In B6C3F1 mice, DSR-6434 (0.1-1 mg/kg; i.v.) significantly suppresses lung metastasis [1].

Solubility Information

Solubility	DMSO: 225 mg/mL (561.83 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: 5 mg/mL (12.49 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	2.497 mL	12.485 mL	24.970 mL
5 mM	0.4994 mL	2.497 mL	4.994 mL
10 mM	0.2497 mL	1.2485 mL	2.497 mL
50 mM	0.0499 mL	0.2497 mL	0.4994 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

Nakamura T, et al. Synthesis and evaluation of 8-oxoadenine derivatives as potent Toll-like receptor 7 agonists with high water solubility. Bioorg Med Chem Lett. 2013 Feb 1;23(3):669-72.
Adlard AL, et al. A novel systemically administered Toll-like receptor 7 agonist potentiates the effect of ionizing radiation in murine solid tumor models. Int J Cancer. 2014 Aug 15;135(4):820-9.

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