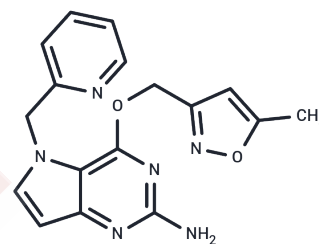


TLR7 agonist 2

Chemical Properties

CAS No. :	1642857-69-9
Formula:	C17H16N6O2
Molecular Weight:	336.35
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	TLR7 agonist 2 (TLR7-IN-1) is a specific and effective Toll-like Receptor 7 (TLR7) agonist (LEC=0.4 μM).
Targets(IC50)	TLR
Cell Research	The ability of TLR7-agonist-1 to activate human TLR7 and/or TLR8 is assessed by using HEK293 cells. Briefly, HEK293 cells are grown in culture medium (DMEM supplemented with 10% FCS and 2 mM Glutamine). Transfected cells are then detached with Trypsin-EDTA, washed in PBS and resuspended in medium to a density of 1.67×10 ⁵ cells/mL. Thirty microliters of cells are then dispensed into each well in 384-well plates, where 10 μL of TLR7-agonist-1 in 4% DMSO is already present. Following 6 hours incubation at 37° C, 5% CO ₂ , the luciferase activity is determined by adding 15 μL of Steady Lite Plus substrate to each well and readout performed on a microplate imager. Lowest effective concentrations (LEC) values are determined for TLR7-agonist-1.
Animal Research	In C57Bl/6 mice model, Single oral administration of 0.3, 1, 3, and 10 mg/kg doses of TLR7-agonist-1.

Solubility Information

Solubility	DMSO: 45 mg/mL (133.79 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.9731 mL	14.8655 mL	29.7309 mL
5 mM	0.5946 mL	2.9731 mL	5.9462 mL
10 mM	0.2973 mL	1.4865 mL	2.9731 mL
50 mM	0.0595 mL	0.2973 mL	0.5946 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

McGowan DC, et al. Identification and Optimization of Pyrrolo[3,2-d]pyrimidine Toll-like Receptor 7 (TLR7) Selective Agonists for the Treatment of Hepatitis B. J Med Chem. 2017 Jul 27;60(14):6137-6151.

Lu J, Zhong X, Guo C, et al. TLR7-MyD88-DC-CXCL16 axis results neutrophil activation to elicit inflammatory response in pustular psoriasis. Cell Death & Disease. 2023, 14(5): 1-13.

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