MCE® MedChemExpress

Product Data Sheet

TLR9-IN-1

Cat. No.:	HY-148045
CAS No.:	2226366-86-3
Molecular Formula:	$C_{23}H_{31}N_7O$
Molecular Weight:	421.54
Target:	Toll-like Receptor (TLR)
Pathway:	Immunology/Inflammation
Storage:	4°C, protect from light
	* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)
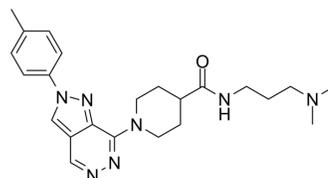
SOLVENT & SOLUBILITY

In Vitro	DMSO : 500 mg/mL (1186.13 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent Concentration	1 mg	5 mg	10 mg
	1 mM	2.3723 mL	11.8613 mL	23.7225 mL
	5 mM	0.4745 mL	2.3723 mL	4.7445 mL
	10 mM	0.2372 mL	1.1861 mL	2.3723 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
	Solubility: ≥ 12.5 mg/mL (29.65 mM); Clear solution
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
	Solubility: ≥ 12.5 mg/mL (29.65 mM); Clear solution

BIOLOGICAL ACTIVITY

Description	TLR9-IN-1 is a potent and selective TLR9 inhibitor with an IC$_{50}$ value of 7 nM for human TLR9. TLR9-IN-1 can be used for researching diseases associated with undesirable immune response[1].
IC$_{50}$ & Target	human TLR9
	7 nM (IC$_{50}$)
In Vitro	TLR9-IN-1 (compound no.29) (0-10 μM; 24 h) exhibits moderately inhibitory activity against IL-1b with an IC$_{50}$ of 1.61 μM in human monocytes (co-incubated with TLR8 agonist ORN8L, RNA oligonucleotide)[1].
	MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Albert Frederick Candia, et al. Toll-like receptor antagonist compounds and methods of use. WO2018089695