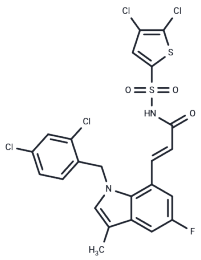
Data Sheet (Cat.No.T15108)

TargetMol

DG-041

Chemical Properties



CAS No. : 861238-35-9

Formula: C23H15Cl4FN2O3S2

Molecular Weight: 592.32

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	DG-041 is an antagonist of high affinity EP3 receptor (IC50s: 4.6 nM and 8.1 nM in the binding and FLIPR assay, respectively). DG-041 inhibits PGE2 facilitation of platelet aggregation and it also crosses the blood-brain barrier.
Targets(IC50)	Prostaglandin Receptor
In vitro	DG-041 was a less effective the DP1 (IC50: 131 nM), EP1 (IC50: 486 nM) and TP receptors (IC50: 742 nM) antagonist [1].
In vivo	DG-041 has CL of 1250 mL/h/kg for intravenous. DG-041 (1.78 mg/kg for i.v or 9.62 mg/kg for p.o) has t1/2 of 2.7 hours, 4.06 hours. DG-041 (1.78 mg/kg for i.v or 9.62 mg/kg for p.o) has Cmax of 9.46 μM, 2.74 μM for intravenous and oral administration, respectively [1].

Solubility Information

Solubility	DMSO: 160 mg/mL (270.12 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: 2 mg/mL (3.38 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	1.6883 mL	8.4414 mL	16.8828 mL
5 mM	0.3377 mL	1.6883 mL	3.3766 mL
10 mM	0.1688 mL	0.8441 mL	1.6883 mL
50 mM	0.0338 mL	0.1688 mL	0.3377 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

Singh J, et al. Antagonists of the EP3 receptor for prostaglandin E2 are novel antiplatelet agents that do not prolong bleeding. ACS Chem Biol. 2009 Feb 20;4(2):115-26.
Hategan G, et al. Heterocyclic 1,7-disubstituted indole sulfonamides are potent and selective human EP3 receptorantagonists. Bioorg Med Chem Lett. 2009 Dec 1;19(23):6797-800.