

MF498

Chemical Properties

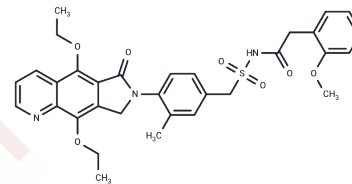
CAS No. : 915191-42-3

Formula: C₃₂H₃₃N₃O₇S

Molecular Weight: 603.69

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	MF498 is a novel and selective E prostanoid receptor 4 (EP4 receptor) antagonist, displayed a strong binding affinity for the EP4 receptor (K _i : 0.7 nM).
Targets(IC50)	Others, Prostaglandin Receptor
In vitro	MF498 inhibits PGE ₂ -stimulated cAMP accumulation in a dose-dependent manner (IC ₅₀ : 1.7 and 17 nM in the absence and presence of 10% serum, respectively). MF498 also displays a relatively good selectivity over other prostanoid receptors, does not compromise the mucosal integrity in the gastrointestinal tract.
In vivo	MF498 on inflammation in adjuvant-caused arthritis (AIA), a rat model for rheumatoid arthritis (RA), and joint pain in a guinea pig model of iodoacetate-induced osteoarthritis (OA). MF498 relieves joint inflammation and pain in rodent models of rheumatoid and osteoarthritis.

Solubility Information

Solubility	DMSO: 31 mg/mL (51.35 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 (3.31 mM), Sonication is recommended. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.6565 mL	8.2824 mL	16.5648 mL
5 mM	0.3313 mL	1.6565 mL	3.313 mL
10 mM	0.1656 mL	0.8282 mL	1.6565 mL
50 mM	0.0331 mL	0.1656 mL	0.3313 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

Clark P, et al. MF498 [N-[[4-(5,9-Diethoxy-6-oxo-6,8-dihydro-7H-pyrrolo[3,4-g]quinolin-7-yl)-3-methylbenzyl]sulfonyl]-2-(2-methoxyphenyl)acetamide], a selective E prostanoid receptor 4 antagonist, relieves joint inflammation and pain in rodent models of rheumatoid and osteoarthritis. *J Pharmacol Exp Ther.* 2008 May;325(2):425-434.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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