

PF-9184

Chemical Properties

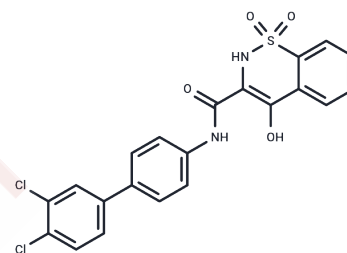
CAS No. : 1221971-47-6

Formula: C₂₁H₁₄Cl₂N₂O₄S

Molecular Weight: 461.32

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	PF-9184 is a potent and selective inhibitor of human microsomal prostaglandin E synthase-1 (mPGES-1) with an IC ₅₀ of 16.5 nM, and it inhibits IL-1 β -induced PGE ₂ synthesis in vitro.
Targets(IC ₅₀)	PGE Synthase, Prostaglandin Receptor
In vitro	PF-9184 (0.015-100 μ M; 24 hours) inhibits IL-1 β -stimulated prostaglandin E ₂ (PGE ₂) synthesis in synovial fibroblasts derived from rheumatoid arthritis (RASF) patients with no apparent cytotoxic effects. It potently blocks mPGES-1's ability to synthesize PGE ₂ from PGH ₂ without inhibiting COX-2 and prostacyclin synthase in cells. In human whole blood and modified blood assays, PF-9184 weakly inhibits PGE ₂ and affects TXB ₂ synthesis only at 100 μ M. PF-9184 poorly inhibits recombinant rat mPGES-1 (IC ₅₀ =1080 \pm 398 nM)[1].
In vivo	PF-9184, whether administered orally or locally, does not affect PGE ₂ synthesis in recombinant rats[1].

Solubility Information

Solubility	DMSO: 60 mg/mL (130.06 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	2.1677 mL	10.8385 mL	21.6769 mL
5 mM	0.4335 mL	2.1677 mL	4.3354 mL
10 mM	0.2168 mL	1.0838 mL	2.1677 mL
50 mM	0.0434 mL	0.2168 mL	0.4335 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

Gabriel M, et, al. Distinction of microsomal prostaglandin E synthase-1 (mPGES-1) inhibition from cyclooxygenase-2 inhibition in cells using a novel, selective mPGES-1 inhibitor. *Biochem Pharmacol.* 2010 May 15; 79(10): 1445-54.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481