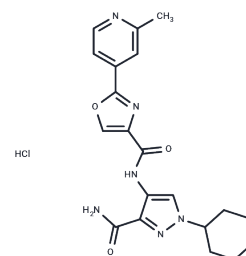


AS-2444697

Chemical Properties

CAS No. : 1287665-60-4
 Formula: C₁₉H₂₁ClN₆O₄
 Molecular Weight: 432.86
 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	AS-2444697 is an inhibitor of IRAK-4 (C50 = 21 nM). AS-2444697 exhibits renoprotective effects through anti-inflammatory action. AS-2444697 potently inhibits human and rat IRAK-4 activity.
Targets(IC50)	IRAK
In vitro	AS-2444697 (0.3-3 mg/kg) significantly increases the plasma levels of IL-1 β , IL-6, TNF- α , MCP-1, and aminotransferases (ALT and AST) in LPS/GaIN-treated mice. Single administration of AS-2444697 (0.3-3 mg/kg) dose-dependently decreases plasma levels of these all parameters, and these effects were significant at doses of 1 mg/kg or higher [1]. After oral administration of AS-2444697 (3 mg/kg) to 5/6 Nx rats, plasma, and tissue (liver and kidney) concentrations of the unchanged drug peaked at 1 h and then gradually decreased, with a terminal half-life of 2.7-2.9 h[1]. AS-2444697 is efficacious in the rat adjuvant-induced arthritis (ED50 2.7 mg/kg, BID, PO) and the rat collagen-induced arthritis (ED50 1.6 mg/kg, BID, PO) disease models. Good bioavailability was seen in rat (F% 50) and dog (F% 78) pharmacokinetic studies[2].

Solubility Information

Solubility	DMSO: < 1 mg/mL (insoluble or slightly soluble), Sonication and heating to 60°C are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3102 mL	11.5511 mL	23.1022 mL
5 mM	0.462 mL	2.3102 mL	4.6204 mL
10 mM	0.231 mL	1.1551 mL	2.3102 mL
50 mM	0.0462 mL	0.231 mL	0.462 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

Mitsuhiro Kondo, et al. Renoprotective effects of novel interleukin-1 receptor-associated kinase 4 inhibitor AS2444697 through anti-inflammatory action in 5/6 nephrectomized rats. *Naunyn Schmiedebergs Arch Pharmacol.* 2014 Oct;387(10):909-19.

JohnHynesJr, et al. Chapter Nine - Advances in the Discovery of Small-Molecule IRAK4 Inhibitors. *Annu Rep Med Chem.* 2014 (49):117-133.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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