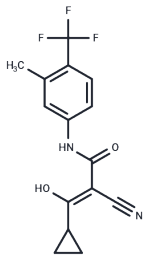
Data Sheet (Cat.No.T11813)

TargetMol

Laflunimus

Chemical Properties



CAS No. : 147076-36-6

Formula: C15H13F3N2O2

Molecular Weight: 310.27

Storage: Store at low temperature
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	Laflunimus (HR325) is a DHODH inhibitor that inhibits immunoglobulin IgM and IgG secretion in vitro and in vivo, with an IC50=2.5 μm, and exerts an immunosuppressive effect by interfering with pyrimidine metabolism, and is used in the study of neuralgia.
Targets(IC50)	Dehydrogenase,DNA/RNA Synthesis,Prostaglandin Receptor
In vitro	Laflunimus (HR325) inhibited LPS-induced IgM and IgG secretion from mouse splenocytes, with IC_{50} values of 2.5 μM and 2 μM, respectively.[1] The addition of exogenous uridine (50 μM) reversed this effect, increasing the IC_{50} values to 70 μM for IgM and 60 μM for IgG, suggesting a pyrimidine depletion mechanism.[1] Laflunimus also suppressed LPS-induced κ light-chain surface expression in 70Z/3 cells, which was similarly reversed by uridine.[1]
In vivo	Laflunimus inhibited the secondary antibody response to sheep red blood cells (SRBC) in mice, with an ID_{50} of 38 mg/kg orally.[1] Co-administration of uridine reversed immunosuppression induced by Laflunimus (50 mg/kg), whereas uridine alone had no effect and did not reverse immunosuppression caused by cyclophosphamide (10 mg/kg).[1]

Solubility Information

Solubility	DMSO: 40 mg/mL (128.92 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2 mg/mL (6.45 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	3.223 mL	16.115 mL	32.230 mL
5 mM	0.6446 mL	3.223 mL	6.446 mL
10 mM	0.3223 mL	1.6115 mL	3.223 mL
50 mM	0.0645 mL	0.3223 mL	0.6446 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

Thomson TA, Spinella-Jaegle S, Francesconi E, Meakin C, Millet S, Flao KL, Hidden H, Ruuth E. In vitro and in Vivo inhibition of immunoglobulin secretion by the immunosuppressive compound HR325 is reversed by exogenous uridine. Scand J Immunol. 2002 Jul;56(1):35-42.
Curnock AP, et al. Potencies of leflunomide and HR325 as inhibitors of prostaglandin endoperoxide H synthase-1 and -2: comparison with nonsteroidal anti-inflammatory drugs. J Pharmacol Exp Ther. 1997 Jul;282(1):339-47.