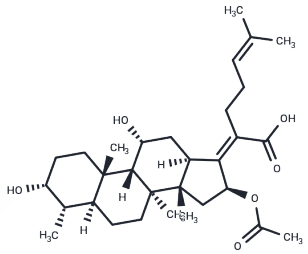
Data Sheet (Cat.No.T1160)

TargetMol

Fusidic acid

Chemical Properties



CAS No. : 6990-06-3

Formula: C31H48O6

Molecular Weight: 516.71

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Fusidic acid (Fusidine) is an antibiotic isolated from the fermentation broth of Fusidium coccineum.
Targets(IC50)	Antibacterial,Antibiotic
Kinase Assay	DHODase activity is measured by the DCIP colorimetric assay. This is a coupled assay in which oxidation of DHO and subsequent reduction of ubiquinone are stoichiometrically equivalent to the reduction of DCIP. Reduction of DCIP is accompanied by a loss of absorbance at 610 nm (ε=21500 M/cm). The assay is performed in a 96-well microtiter plate at ambient temperature (ca. 25°C). Stock solutions of 10 mM leflunomide and A771726 are prepared in dimethyl sulfoxide (DMSO) and these are diluted with reaction buffer (100 mM Tris and 0.1 % Triton X-100, pH 8.0) to prepare working stocks of the inhibitors at varying concentrations. For each reaction, the well contained 10 nM DHODase, 68 μM DCIP, 0.16 mg/mL gelatin, the stated concentration of ubiquinone, 10 μL of an inhibitor working stock to give the stated final concentration, and reaction buffer. After a 5-min equilibration period, the reaction is initiated by addition of DHO to the stated final concentrations. The total volume of reaction mixture for each assay is 150 μL, and the final DMSO concentration is ≤ 0.01% (v/v). The reaction progress is followed by recording the loss of absorbance at 610 nm over a 10-min period (during which the velocity remained linear). Velocities are reported as the change in absorbance at 610 nm per minute, and each reported value is the average of three replicates. In experiments where the DHO or ubiquinone concentration is varied, the other substrate is held constant at 200 μM. To determine the inhibitor potency of leflunomide and A771726, the effects of varying concentrations of the two compounds on the initial velocity of the DHODase reaction is measured over a concentration range of 0.01?1.0 μM. In these experiments the DHO and ubiquinone concentrations are held constant at 200 and 100 μM, respectively.

Solubility Information

Solubility	DMSO: 45 mg/mL (87.09 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.9353 mL	9.6766 mL	19.3532 mL
5 mM	0.3871 mL	1.9353 mL	3.8706 mL
10 mM	0.1935 mL	0.9677 mL	1.9353 mL
50 mM	0.0387 mL	0.1935 mL	0.3871 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.

Reference

Day PJ, et al. Biochemistry. 1995 May 16;34(19):6416-22.
Zhang H, Liang B, Sang X, et al.Discovery of Potential Inhibitors of SARS-CoV-2 Main Protease by a Transfer Learning Method.Viruses.2023, 15(4): 891.

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