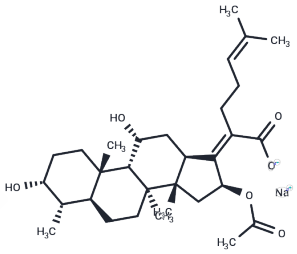
Data Sheet (Cat.No.T1289)

TargetMol

Fusidic acid sodium salt

Chemical Properties



CAS No. : 751-94-0

Formula: C31H47NaO6

Molecular Weight: 538.69

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	Fusidic acid sodium salt (SQ-16360) is a sodium salt form of fusidic acid, a bacteriostatic antibiotic derived from the fungus Fusidium coccineum and used as a topical medication to treat skin infections.
Targets(IC50)	Antibacterial,Antibiotic,Interleukin
In vivo	Fusidin(Fusidate Sodium) ameliorates EAM, at least partly, through an inhibitory action on the secretion of TNF-a[1]. It markedly attenuates clinical and histological signs of immunoinflammatory diabetes mellitus in mice given streptozotocin(SZ). The effect is dose-dependent, observed in three different strains of mice. Thus, fusidin might have an antidiabetogenic effect[2].
Kinase Assay	Binding assays: Binding assays are performed as previously described (Allenby et al., 1993, 1994). Briefly, labeled and unlabeled retinoids are added to nucleosol or cytosolic fractions in ethanol so that the total amount of ethanol added is constant in all tubes and did not exceed 2% of the incubation volume. The receptor preparations are incubated with retinoids at 4°C for 4-6 hr. Sephadex PD-10 desalting columns are used to separate bound radioligand from free radioligand after equilib- rium is achieved. For competitive binding assays, varying concentrations of unlabeled competing ligand are incubated with the appropriate nucleosol or cytosol in the presence of a fixed concentration of [3H]tRA (sp. act. 49.3 Ci/mmol) or [3H]9-cis RA (sp. act. 24.0 Ci/mmol). Final concentrations of [3H] tRA and [3H]9-cis RA for nuclear receptor binding assays are 5 nM. Final concentrations of [3H] tRA for CRABP binding assays is 30 nM. The IC50s are calculated as described above (DeLean et al., 1978). For saturation kinetics, increasing concentrations of radiolabeled ligand ([3H]tRA sp. act. 49.3 Ci/mmol, [3H]TTNPB sp. act. 5.5 Ci/ mmol) are added to the nucleosol of the appropriate receptor subtype in the presence (nonspecific binding) or absence (total binding) of a 100-fold molar excess of the corresponding unlabeled retinoid. Specific binding is defined as the total binding minus nonspecific binding. Saturation kinetics are calculated as previously described (Scatchard, 1949; Grippo and Gudas, 1987; Levin et al., 1992).

Solubility Information

Solubility	Ethanol: 93 mg/mL (172.64 mM),Sonication is recommended. H2O: 92 mg/mL (170.78 mM),Sonication is recommended. DMSO: 93 mg/mL (172.64 mM),Sonication is recommended.

Solubility	(< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3.3 mg/mL (6.13 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	1.8564 mL	9.2818 mL	18.5636 mL
5 mM	0.3713 mL	1.8564 mL	3.7127 mL
10 mM	0.1856 mL	0.9282 mL	1.8564 mL
50 mM	0.0371 mL	0.1856 mL	0.3713 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

Milenković M, et al. Pharmazie. 2007, 62(6):445-8.
Li J, Liu X, Tan L, et al. Zinc-doped Prussian blue enhances photothermal clearance of Staphylococcus aureus and promotes tissue repair in infected wounds. Nature communications. 2019 Oct 3;10(1):4490. doi: 10.1038
Zhang P, Tang S, Fu Q, et al.Proteomic analysis of anti-MRSA activity of caerin 1.1/1.9 in a murine skin infection model and their in vitro anti-biofilm effects against Acinetobacter baumannii.Microbiology Spectrum.2023: e04520-22.
Nicoletti F, et al. J Autoimmun. 2000, 15(4):395-405.
Li J, Liu X, Tan L, et al. Zinc-doped Prussian blue enhances photothermal clearance of Staphylococcus aureus and promotes tissue repair in infected wounds[J]. Nature communications. 2019, 10(1): 1-15.