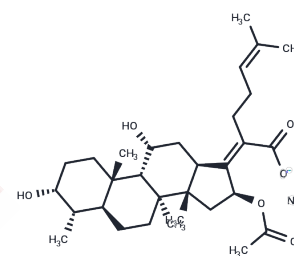


## Fusidic acid sodium salt

## Chemical Properties

CAS No. :	751-94-0
Formula:	C <sub>31</sub> H <sub>47</sub> NaO <sub>6</sub>
Molecular Weight:	538.69
Appearance:	no data available
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year



## Biological Description

Description	Fusidic acid sodium salt (SQ-16360) is a sodium salt form of fusidic acid, a bacteriostatic antibiotic derived from the fungus <i>Fusidium coccineum</i> and used as a topical medication to treat skin infections.
Targets(IC50)	Antibacterial, Antibiotic
In vivo	Fusidin(Fusidate Sodium) ameliorates EAM, at least partly, through an inhibitory action on the secretion of TNF- $\alpha$ [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 equilibrium 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 IC <sub>50</sub> s 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. H <sub>2</sub> O: 92 mg/mL (170.78 mM), Sonication is recommended. DMSO: 93 mg/mL (172.64 mM), Sonication is recommended.
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(< 1 mg/ml refers to the product slightly soluble or insoluble)

## 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.

## 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.

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