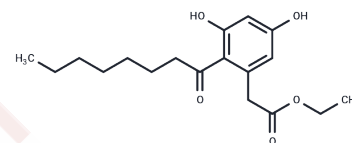


Cytosporone B

Chemical Properties

CAS No. :	321661-62-5
Formula:	C ₁₈ H ₂₆ O ₅
Molecular Weight:	322.4
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	Cytosporone B (Dothiorelone G) is a naturally occurring agonist of the nuclear orphan receptor Nur77/NR4A1 (EC ₅₀ =0.278 nM).
Targets(IC50)	Others,NR4A
In vitro	Cytosporone B targets the ligand-binding domain of Nur77, Cytosporone B induced fluorokinase activity in cells cotransfected with GAL4-Nur77 or GAL4-LBD, the EC ₅₀ of Cytosporone B for Nur77 is 0.278 nM. Cytosporone B had an inhibitory effect on the proliferation of human cancer BGC- 823 cells and human cancer SW620 cells by greater than 70%, but had modest inhibitory effect on human cancer H1299 cells and human hepatocellular carcinoma HepG2 cells by greater than or equal to 40%. [1]
In vivo	In wild-type mice, Cytosporone B treatment significantly increased glucose levels from 3.2 mM to 11.4 mM within the first 30 minutes, after which blood glucose gradually decreased, reaching initial levels after 300 minutes. [1]

Solubility Information

Solubility	DMSO: 125 mg/mL (387.72 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: < 10 mg/mL (31.02 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: < 10 mg/mL (31.02 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+90% (20% SBE-β-CD in Saline): 10 mg/mL (31.02 mM),Suspension. 2% DMSO + 98% (20% SBE-β-CD in Saline): 2 mg/mL (6.2 mM),Solution. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.1017 mL	15.5087 mL	31.0174 mL
5 mM	0.6203 mL	3.1017 mL	6.2035 mL
10 mM	0.3102 mL	1.5509 mL	3.1017 mL
50 mM	0.062 mL	0.3102 mL	0.6203 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

Zhan, Y. , et al. Cyclosporine B is an agonist for nuclear orphan receptor Nur77. *Nature Chemical Biology* 4, 548-556 (2008).

Shi H, Chen L, Wang T, et al. Nur77-IRF1 axis inhibits esophageal squamous cell carcinoma growth and improves anti-PD-1 treatment efficacy. *Cell Death Discovery*.2024, 10(1): 254.

Hu, Y.W.,Zhang, P.,Yang, J.Y., et al. Nur77 decreases atherosclerosis progression in apoE^{-/-} mice fed a high-fat/high-cholesterol diet. *PLoS One* 9(1), 1-12 (2014).

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