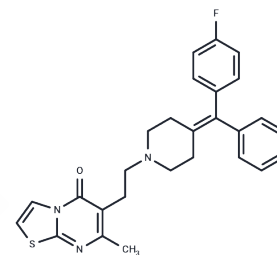


R 59-022

Chemical Properties

CAS No. : 93076-89-2
 Formula: C₂₇H₂₆FN₃O₅
 Molecular Weight: 459.58
 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	R 59-022 (DKGI-I) is a diacylglycerol kinase (DGK) inhibitor and a 5-HT Receptor antagonist that blocks filovirus internalization in host cells. R 59-022 activates protein kinase C (PKC), inhibits intestinal smooth muscle contractility, and enhances O ₂ -production induced by 1-oleoyl-2-acetylgllycerol.
Targets(IC ₅₀)	5-HT Receptor,PKC
In vitro	Vero cells were treated with increasing concentrations of R 59-022 and exposed for 4 hours to MLV pseudotypes encoding LacZ and bearing EBOV GP or VSV-G in the presence of the drug. R 59-022 blocked an entry step specific to EBOV GP. Vero cells were treated with increasing concentrations of R 59-022 and exposed to VLPs bearing EBOV GP or VSV G in the presence of the drug for 3 h. By CCF2-AM staining and flow cytometry analysis, R 59-022 dose-dependent decrease in entry by the VLPs harboring the EBOV GP , IC ₅₀ : ~2 μM. [5]

Solubility Information

Solubility	DMSO: 50 mg/mL (108.79 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (4.35 mM),Sonication is recommended. <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	2.1759 mL	10.8795 mL	21.759 mL
5 mM	0.4352 mL	2.1759 mL	4.3518 mL
10 mM	0.2176 mL	1.0879 mL	2.1759 mL
50 mM	0.0435 mL	0.2176 mL	0.4352 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

- de Chaffoy de Courcelles DC, et al. R 59 022, a diacylglycerol kinase inhibitor. Its effect on diacylglycerol and thrombin-induced C kinase activation in the intact platelet. *J Biol Chem.* 1985 Dec 15;260(29):15762-70.
- Nunn DL, et al. A diacylglycerol kinase inhibitor, R59022, potentiates secretion by and aggregation of thrombin-stimulated human platelets. *Biochem J.* 1987 May 1;243(3):809-13.
- Jones JA, et al. Influence of phorbol esters, and diacylglycerol kinase and lipase inhibitors on noradrenaline release and phosphoinositide hydrolysis in chromaffin cells. *Br J Pharmacol.* 1990 Nov;101(3):521-6.
- Boroda S, et al. Dual activities of ritanserin and R59022 as DGK α inhibitors and serotonin receptor antagonists. *Biochem Pharmacol.* 2017 Jan 1;123:29-39.
- Stewart CM, et al. A Diacylglycerol Kinase Inhibitor, R-59-022, Blocks Filovirus Internalization in Host Cells. *Viruses.* 2019 Mar 1;11(3). pii: E206.

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