

RP-54745

Chemical Properties

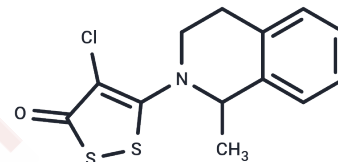
CAS No. : 135330-08-4

Formula: C₁₃H₁₂ClNOS₂

Molecular Weight: 297.82

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	RP-54745, a potential antirheumatic compound. Inhibitor of macrophage stimulation and interleukin-1 production.
Targets(IC50)	Interleukin
In vivo	RP-54745 might diminish LPS-induced interleukin-1 (IL-1) production by murine peritoneal macrophages[1], RP-54745 might influence cells and cytokines implicated in the regulation of the immune system, the dysfunctioning of which can lead to inflammatory disorders or autoimmune pathologies[2]
Animal Research	1.5*10 ⁶ peritoneal murine macrophages, after a 2-h period of adherence, were cultured in RPMI 1640 with 5% FCS for 20 h at 37 °C in 5% CO ₂ . In vitro, test compounds were added 15 min before the stimulant, 100ng/ml LPS, and the cells were incubated for 2-24 h. In vivo, thioglycollate-stimulated female OFt mice were orally treated with 5 or 25 mg/kg/day RP 54745 for 4 days. Harvested macrophages were then stimulated ex vivo for 2 h with LPS at concentrations ranging from 0.1-10 ng/ml. In some assays, 4 h before macrophage harvesting, mice were treated intraperitoneally with LPS: 0.5 ug per mouse. At the end of the in vitro incubation period, supernatants were removed from cultures, and cells were lysed by three freeze/thaw cycles. Both extracellular and cell-associated IL-1 activities were assayed.

Solubility Information

Solubility	DMSO: 62.5 mg/mL (209.86 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 (6.72 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	3.3577 mL	16.7887 mL	33.5773 mL
5 mM	0.6715 mL	3.3577 mL	6.7155 mL
10 mM	0.3358 mL	1.6789 mL	3.3577 mL
50 mM	0.0672 mL	0.3358 mL	0.6715 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

Folliard F , Bousseau A , Terlain B . RP 54745, a potential antirheumatic compound. I. Inhibitor of macrophage stimulation and interleukin-1 production[J]. Agents and Actions, 1992, 36(1-2):119-126.

Folliard F , Bousseau A , Terlain B . RP 54745, a potential antirheumatic compound. II. In vivo properties in different animal models[J]. Agents and Actions, 1992, 36(1-2):127-135.

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