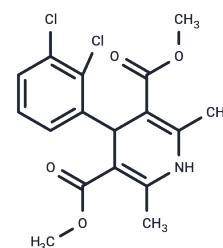


Felodipine

Chemical Properties

CAS No. :	72509-76-3
Formula:	C ₁₈ H ₁₉ Cl ₂ N ₁ O ₄
Molecular Weight:	384.25
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	Felodipine (CGH-869) is a longlasting 1, 4-dihydropyridine calcium channel repressor.
Targets(IC50)	Calcium Channel, Autophagy
In vitro	Felodipine acts on the aortic wall by inhibiting NF-κB activation and effectively reduces serum insulin levels within macrophages, as well as intracellular adhesion molecule-1 (ICAM-1) and vascular cell adhesion molecule-1 (VCAM-1), thereby significantly lowering systolic blood pressure and modulating vascular inflammatory responses. Oral administration of Felodipine in rats with 5/6 nephrectomy markedly decreases the mean arterial blood pressure.
In vivo	In primary human VSMCs and lung fibroblasts, Felodipine significantly induced transcription and secretion of IL-6 (ED50: 5.8 nM) and IL-8 (ED50: 5.3 nM), with no effect observed from the administration of either propranolol or fenbufen on the expression of these IL genes. In guinea pig ileum longitudinal smooth muscle, Felodipine inhibited carbachol-regulated Ca ²⁺ -dependent contraction (IC50: 1.45 nM). At a concentration of 0.1 μM in rat endothelial cells, Felodipine increased NO _x production and the activity of Ca ²⁺ -dependent NOS and eNOS proteins. At 10 μM, it suppressed human SMC proliferation by inhibiting PDGF-BB-induced Elk-1 activation and reducing the nuclear translocation of p42/44 mitogen-activated protein kinase. Felodipine moderately inhibited Cav3.2 T-type Ca ²⁺ channels (IC50: 6.8 μM). In porcine coronary artery segments contracted with KCl, Felodipine significantly induced relaxation (IC50: 0.15 nM), suggesting it is 50 times more potent than nifedipine (IC50: ~8 nM) and 430 times more potent than verapamil (IC50: ~65 nM) due to its Ca ²⁺ channel blocking action.

Solubility Information

Solubility	DMSO: 250 mg/mL (650.62 mM), Sonication is recommended. Ethanol: 38.4 mg/mL (99.93 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 (5.2 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</i>

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In vivo Formulation	<i>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>
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6025 mL	13.0124 mL	26.0247 mL
5 mM	0.5205 mL	2.6025 mL	5.2049 mL
10 mM	0.2602 mL	1.3012 mL	2.6025 mL
50 mM	0.052 mL	0.2602 mL	0.5205 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

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Ding Y, et al. Hypertension, 1998, 32(4), 718-723.

Yang Z, et al. Cardiovasc Res, 2002, 53(1), 227-231.

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