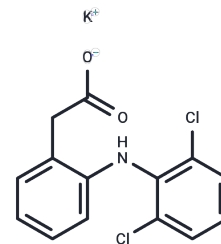


Diclofenac Potassium

Chemical Properties

CAS No. :	15307-81-0
Formula:	C ₁₄ H ₁₀ Cl ₂ KNO ₂
Molecular Weight:	334.24
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	Diclofenac Potassium (CGP-45840B) is a nonsteroidal anti-inflammatory drug taken to reduce inflammation and as an analgesic reducing pain in certain conditions.
Targets(IC50)	Apoptosis, COX
In vitro	The primary mechanism of diclofenac responsible for its anti-inflammatory, antipyretic, and analgesic action is thought to be inhibition of prostaglandin synthesis by inhibition of cyclooxygenase (COX). It also appears to exhibit bacteriostatic activity by inhibiting bacterial DNA synthesis. Inhibition of COX also decreases prostaglandins in the epithelium of the stomach, making it more sensitive to corrosion by gastric acid. This is also the main side effect of diclofenac. Diclofenac has a low to moderate preference to block the COX2-isoenzyme (approximately 10-fold) and is said to have, therefore, a somewhat lower incidence of gastrointestinal complaints than noted with indomethacin and aspirin.

Solubility Information

Solubility	H ₂ O: 10 mg/mL (29.92 mM), Sonication is recommended. Ethanol: < 1 mg/mL (insoluble or slightly soluble), DMSO: 55 mg/mL (164.55 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 (5.98 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	2.9919 mL	14.9593 mL	29.9186 mL
5 mM	0.5984 mL	2.9919 mL	5.9837 mL
10 mM	0.2992 mL	1.4959 mL	2.9919 mL
50 mM	0.0598 mL	0.2992 mL	0.5984 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

Dastidar SG, et al. *Int J Antimicrob Agents*, 2000, 14(3), 249-251.

Niethard FU, et al. *J Rheumatol*, 2005, 32(12), 2384-2392.

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