

Ivermectin

Chemical Properties

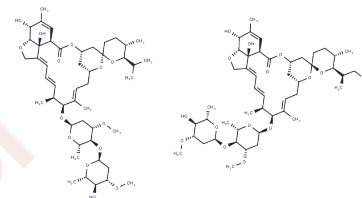
CAS No. : 70288-86-7

Formula: C₄₈H₇₄O₁₄

Molecular Weight: 875.09

Storage: Keep away from moisture, Store under nitrogen
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	Ivermectin (MK-933) is an activator of glutamate-gated chloride channels (GluCl _s) with antiparasitic activity.
Targets(IC ₅₀)	Mitophagy, Anti-infection, GluCl _s , HIV Protease, Antibacterial, Antibiotic, Parasite, Autophagy, HSV, P2X Receptor, SARS-CoV
In vitro	Ivermectin exhibits antiviral activity against HIV-1 and Dengue fever virus. It binds to a novel site on GABAA receptors in hippocampal embryonic neurons of mice, conformationally enhancing the affinity of the GABA binding site. In nematodes, the compound interacts with glutamate-gated chloride channels (GluCl _s), disrupting the regulation mediated by GluCl activity.
In vivo	Intraperitoneal injection of Ivermectin (1.25-10 mg/kg) can reduce the consumption of alcohol and saccharin. For mice exposed to lethal doses of LPS, Ivermectin inhibits LPS-induced NF-κB translocation and enhances survival rates.

Solubility Information

Solubility	Ethanol: 27 mg/mL (30.85 mM), Sonication is recommended. DMSO: 257.5 mg/mL (294.26 mM), Sonication is recommended. H ₂ O: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.1427 mL	5.7137 mL	11.4274 mL
5 mM	0.2285 mL	1.1427 mL	2.2855 mL
10 mM	0.1143 mL	0.5714 mL	1.1427 mL
50 mM	0.0229 mL	0.1143 mL	0.2285 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

Wagstaff KM, et al. *Biochem J*, 2012, 443(3), 851-856.

Reiter RJ, et al. *Prog Neurobiol*, 1998, 56(3), 359-384.

Moreno Y, et al. *Proc Natl Acad Sci U S A*, 2010, 107(46), 20120-20125.

Yardley MM, et al. *Neuropharmacology*, 2012, 63(2), 190-201.

Zhang X, et al. *Inflamm Res*, 2008, 57(11), 524-529.

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