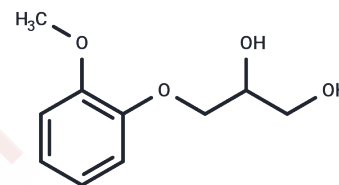


## Guaifenesin

## Chemical Properties

CAS No. :	93-14-1
Formula:	C <sub>10</sub> H <sub>14</sub> O <sub>4</sub>
Molecular Weight:	198.22
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



## Biological Description

Description	Guaifenesin (Guaiphenesin) is an expectorant that also has some muscle relaxing action. It is used in many cough preparations.
Targets(IC50)	Others, Mucin
In vivo	Guaifenesin (200 mg/kg, intravenously) combined with ketamine (50 mg/kg, intramuscularly) produces effective and safe surgical anesthesia for over 30 minutes in New Zealand white rabbits. Guaifenesin (200 mg/kg, intravenously) combined with ketamine (50 mg/kg, intramuscularly) mildly depresses respiratory rate but heart rate and arterial blood pressure are not significantly affected. Guaifenesin (200 mg/kg, intravenously) is combined with sodium pentobarbital (20 mg/kg, intravenously) to produce surgical anesthesia for a period of more than 30 minutes. [1] Guaifenesin (50 mg/mL) combined Xylazine (0.1 mg/mL) and Ketamine (1.0 mg/mL) results in excellent anesthetic induction and maintenance with cardiopulmonary alterations similar to those associated with isoflurane in mechanically ventilated calves. [2] Guaifenesin (150 mg/kg) decreases spectral edge frequency (SEF) and total power in pigs. [3] Guaifenesin prevents adverse anesthetic induction events caused by Propofol in horse. Guaifenesin (90 mg/kg) followed by Propofol (3 mg/kg) should be sufficient to immobilize > 99% of calm healthy adult horses. [4] Guaifenesin (100 mg/kg) produces moderate behavioral changes in the social conflict test in mice. Guaifenesin (200 mg/kg) combined with Paracetamol (200 mg/kg) causes significantly more pronounced analgesic effects than the corresponding doses of paracetamol alone in mice. [5]

## Solubility Information

Solubility	DMSO: 50 mg/mL (252.24 mM), Sonication is recommended. H <sub>2</sub> O: 23 mg/mL (116.03 mM), Sonication is recommended. Ethanol: 38 mg/mL (191.71 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	5.0449 mL	25.2245 mL	50.449 mL
5 mM	1.009 mL	5.0449 mL	10.0898 mL
10 mM	0.5045 mL	2.5224 mL	5.0449 mL
50 mM	0.1009 mL	0.5045 mL	1.009 mL

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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

Olson ME, et al. *Can J Vet Res*, 1987, 51(3), 383-386.

Kerr CL, et al. *Am J Vet Res*, 2007, 68(12), 1287-1293.

Haga HA, et al. *Am J Vet Res*, 2000, 61(12), 1599-1601.

Brosnan RJ, et al. *Am J Vet Res*, 2011, 72(12), 1569-1575.

Dolezal T, et al. *Naunyn Schmiedebergs Arch Pharmacol*, 2002, 366(6), 551-554.

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