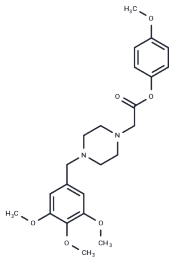
Data Sheet (Cat.No.T62396)

TargetMol

KB-5492 free base

Chemical Properties



CAS No. : 113594-64-2

Formula: C23H30N2O6

Molecular Weight: 430.49

Storage: Keep away from moisture
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	KB-5492 free base is an orally available and selective antiulcer agent that inhibits sigma receptors, inhibits [3H]1,3-di(2-tolyl)guanidine (DTG) binding to sigma receptors, and may be useful in the study of gastric lesions and gastric secretion.
Targets(IC50)	Sigma receptor
In vitro	KB-5492 free base selectively inhibited specific [3H]1,3-di(2-tolyl)guanidine (DTG) binding to the sigma receptor (IC50 = 3.15 microM) with a pseudo-Hill coefficient of 0.33 [1].
In vivo	In male Sprague-Dawley rats weighing 210-240 g, induction of gastric mucosal damage was reduced by KB-5492 free base (200 mg/kg; oral gavage) compared to the control group. Additionally, it prevented deep mucosal lesions and exfoliation of surface epithelial cells[2].

Solubility Information

Solubility	DMSO: 80 mg/mL (185.83 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3229 mL	11.6147 mL	23.2293 mL
5 mM	0.4646 mL	2.3229 mL	4.6459 mL
10 mM	0.2323 mL	1.1615 mL	2.3229 mL
50 mM	0.0465 mL	0.2323 mL	0.4646 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

Harada Y, et al. Receptor binding profiles of KB-5492, a novel anti-ulcer agent, at sigma receptors in guinea-pig brain. Eur J Pharmacol. 1994 May 2; 256(3): 321-8.
Morimoto Y, et al. Effects of KB-5492, a new anti-ulcer agent, on ethanol- and acidified aspirin-induced gastric mucosal damage in vivo and in vitro. Jpn J Pharmacol. 1994 Jan; 64(1): 41-7.