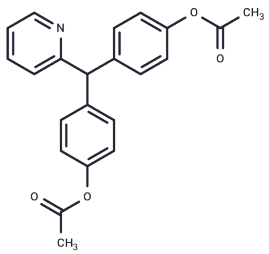
Data Sheet (Cat.No.T6414)

TargetMol

Bisacodyl

Chemical Properties



CAS No. : 603-50-9

Formula: C22H19NO4

Molecular Weight: 361.39

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	Bisacodyl (Fenilaxan) is a diphenylmethane stimulant laxative used for the treatment of constipation and for bowel evacuation.
Targets(IC50)	Others,Opioid Receptor,Dopamine Receptor
In vitro	Bisacodyl inhibits the absorption of water in rats' jejunum, ileum, and colon, with the degree of inhibition linearly correlated to the logarithm of bisacodyl concentration. At a dosage of 4.3 mg/kg, bisacodyl, in combination with AOM, increases the number of microcysts per colony in rats without increasing tumor numbers. However, a higher dosage of 43 mg/kg significantly raises both the microcyst and tumor counts. Compared to rats treated with saline, bisacodyl (5.9 mg/kg) significantly reduces the activity of jejunum and colon (Na + K) ATPases. Furthermore, at 5.9 mg/kg, bisacodyl markedly increases PGE2 levels and stimulates adenylate cyclase activity in the jejunum and colon, without affecting cAMP levels. Oral administration of 10 mg/kg bisacodyl significantly decreases NOS activity in the rat jejunum. Meanwhile, 20 mg/kg bisacodyl leads to a reduction in AQP3 protein expression and an increase in TNF-α mRNA expression levels in the rat colon.
In vivo	At a concentration of 10 μg/mL, Bisacodyl acts on Raw264.7 cells, leading to an increase in the mRNA expression levels of TNF-α, COX2, and PGE2.

Solubility Information

Solubility	H2O: < 1 mg/mL (insoluble) DMSO: 83.33 mg/mL (230.58 mM),Sonication is recommended. Ethanol: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 8.33 mg/mL (23.05 mM),Solution. 10% DMSO+90% Saline: < 8.33 mg/mL (23.05 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7671 mL	13.8355 mL	27.6709 mL
5 mM	0.5534 mL	2.7671 mL	5.5342 mL
10 mM	0.2767 mL	1.3835 mL	2.7671 mL
50 mM	0.0553 mL	0.2767 mL	0.5534 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

Ikarashi N, et al. Am J Physiol Gastrointest Liver Physiol, 2011, 301(5), G887-895.
Saunders DR, et al. Gastroenterology, 1977, 72(5 Pt 1), 849-856.
Karmeli F, et al. Scand J Gastroenterol, 1997, 32(8), 791-796.
Rachmilewitz D, et al. Dig Dis Sci, 1980, 25(8), 602-608.
Borrelli F, et al. Life Sci, 2001, 69(16), 1871-1877.