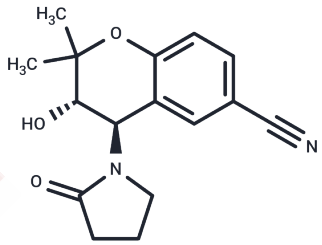
Data Sheet (Cat.No.TQ0150)

TargetMol

Levcromakalim

Chemical Properties



CAS No. : 94535-50-9

Formula: C16H18N2O3

Molecular Weight: 286.33

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	Levcromakalim (BRL 38227) is an activator of the ATP-sensitive K+ channel.
Targets(IC50)	Potassium Channel
In vitro	Levcromakalim inhibits spontaneous contractions completely in a glibenclamide-sensitive manner. LevCromakalim (5 μM) inhibits spontaneous contractions, which are recovered by glibenclamide. Levcromakalim (1, 5 and 10 μM) inhibits phasic contractions to 34±21.1%, 20.1±20.0% and 0% of the control. Glibenclamide reverses the inhibition of spontaneous isometric contractions caused by LevCromakalim (5 μM) to 84±1.5% of the control. Levcromakalim (20 and 100 μM) also inhibits oxytocin (OXT) (10 nM)-induced phasic contractions to 34±21.4% and 14±12.6% of the control [2]. LevCromakalim induces dose-dependent relaxation in both the young and old mesenteric artery (MAs); there is no difference in relaxation with age. However, the relaxation is markedly reduced in response to the high-salt (HS) diet in the old MAs (P<0.05). Maximum dilations to Levcromakalim (10-4 M) are 97 ± 3% in the young MAs versus 98 ± 1% in the young salt arteries, while dilations are 99±0.7% in the old MAs when compared with 85 ± 5% in the old salt arteries (P<0.05) [3].

Solubility Information

Solubility	H2O: Insoluble, DMSO: 50 mg/mL (174.62 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 (6.98 mM),Sonication is recommended. *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	3.4925 mL	17.4624 mL	34.9247 mL
5 mM	0.6985 mL	3.4925 mL	6.9849 mL
10 mM	0.3492 mL	1.7462 mL	3.4925 mL
50 mM	0.0698 mL	0.3492 mL	0.6985 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

Matsumoto T, et al. Tunicamycin-Induced Alterations in the Vasorelaxant Response in Organ-Cultured Superior Mesenteric Arteries of Rats. Biol Pharm Bull. 2016;39(9):1475-81.
Hong SH, et al. Regulation of myometrial contraction by ATP-sensitive potassium (KATP) channel via activation of SUR2B and Kir 6.2 in mouse. J Vet Med Sci. 2016 Aug 1;78(7):1153-9.
Whidden MA, Altered potassium ATP channel signaling in mesenteric arteries of old high salt-fed rats. J Exerc Nutrition Biochem. 2016 Jun;20(2):58-64.