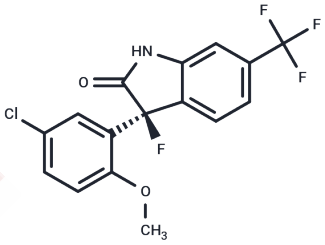
Data Sheet (Cat.No.T15286)

TargetMol

Flindokalner

Chemical Properties



CAS No. : 187523-35-9

Formula: C16H10ClF4NO2

Molecular Weight: 359.7

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	Flindokalner (BMS-204352) is a potassium channel modulator and a positive modulator of all neuronal Kv7 channel subtypes expressed in HEK293 cells. It is also a positive modulator of large conductance calcium-activated K channels (BKca) and displays negative modulatory activity at Kv7.1 channels (Ki = 3.7 μM). Additionally, Flindokalner acts as a negative modulator of GABAA receptors and demonstrates anxiolytic efficacy in vivo.
Targets(IC50)	Potassium Channel
In vitro	Flindokalner inhibits cardiac L-type Ca2+ channels in a direct manner, without affecting BKCa channels or intracellular signal transduction, in freshly isolated rat ventricular myocytes. Flindokalner (10 μM) inhibits Kv7.4and Kv7.5 (Kis: 230 and 605 μM, respectively)[1]. Flindokalner (1-10 μM) causes inhibition of the Ca2+ current in a dose-dependent manner (Kd: 6 μM and a Hill coefficient: 1.33) [2].
In vivo	Flindokalner (3-60 mg/kg; i.p.) engenders an anxiolytic profile, in a shock-based conditioned model of anxiety in male Wistar rats. Flindokalner (3-30 mg/kg; i.p.) induces a dose-dependent anxiolytic effect [1].

Solubility Information

Solubility	DMSO: 100 mg/mL (278.01 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 3.3 mg/mL (9.17 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	2.7801 mL	13.9005 mL	27.8009 mL
5 mM	0.556 mL	2.7801 mL	5.5602 mL
10 mM	0.278 mL	1.390 mL	2.7801 mL
50 mM	0.0556 mL	0.278 mL	0.556 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

Korsgaard MP, et al. Anxiolytic effects of Maxipost (BMS-204352) and retigabine via activation of neuronal Kv7channels. J Pharmacol Exp Ther. 2005 Jul;314(1):282-92.
Son YK, et al. The inhibitory effect of Ca2+-activated K+ channel activator, BMS on L-type Ca2+ channels in rat ventricular myocytes. Life Sci. 2011 Aug 29;89(9-10):331-6.