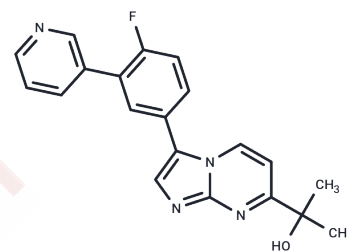


MRK-623

Chemical Properties

CAS No. : 461449-78-5
 Formula: C₂₀H₁₇N₄O
 Molecular Weight: 348.37
 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	MRK-623 (Compound 14k) is a potent, orally active agonist of the GABA A receptor with high affinity for subunits $\alpha 1$, $\alpha 2$, $\alpha 3$, and $\alpha 5$, exhibiting K_i values of 0.85 nM, 3.7 nM, 4.0 nM, and 0.53 nM, respectively. Notably, MRK-623 demonstrates anxiolytic effects [1].
Targets(IC50)	Others,GABA Receptor
In vitro	MRK-623 demonstrates effectiveness on human GABAA receptor subtypes, which are expressed in L(tk-) cells. This has been measured using whole cell patch-clamp electrophysiology [1].
In vivo	MRK-623, administered via oral gavage at dosages of 0.3, 1, and 3 mg/kg on a single occasion, demonstrates anxiolytic effects in rats as measured by the elevated plus maze assay [1]. Specifically, at a dosage of 3 mg/kg, MRK-623 achieved 78% benzodiazepine (BZ) site occupancy, with an inhibitory dose 50 (ID 50) identified at 0.8 mg/kg.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8705 mL	14.3526 mL	28.7051 mL
5 mM	0.5741 mL	2.8705 mL	5.741 mL
10 mM	0.2871 mL	1.4353 mL	2.8705 mL
50 mM	0.0574 mL	0.2871 mL	0.5741 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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