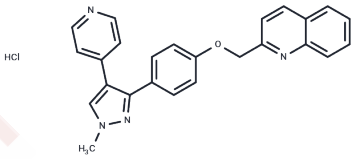
Data Sheet (Cat.No.T62356)

TargetMol

Mardepodect hydrochloride

Chemical Properties



CAS No. :	2070014-78-5
Formula:	C25H21ClN4O
Molecular Weight:	428.91
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	Mardepodect hydrochloride (Mardepodect HCl) is an orally active, selective and potent inhibitor of PDE10A that crosses the blood-brain barrier (IC50: 0.37 nM).Mardepodect hydrochloride up-regulates the expression of proteins encoding specific growth and transcription factors, cell signalling molecules and cell surface proteins. Mardepodect hydrochloride upregulates genes encoding specific growth factors, transcription factors, cell signalling molecules, and cell surface proteins, while downregulating a broad spectrum of cell cycle and apoptosis-related genes.
Targets(IC50)	Apoptosis,PDE
In vivo	Injecting Mardepodect hydrochloride (PF-2545920) into mice leads to a dose-dependent increase in striatal cyclic guanosine monophosphate (cGMP). Its median effective dose (ED50) is 1 mg/kg [2].

Solubility Information

Solubility	DMSO: 20 mg/mL (46.63 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: 2.5 mg/mL (5.83 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	2.3315 mL	11.6575 mL	23.3149 mL
5 mM	0.4663 mL	2.3315 mL	4.663 mL
10 mM	0.2331 mL	1.1657 mL	2.3315 mL
50 mM	0.0466 mL	0.2331 mL	0.4663 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

Wilson JM et al. Phosphodiesterase 10A inhibitor, MP-10 (PF-2545920), produces greater induction of c-Fos in D2 neurons than in D1 neurons in the neostriatum. Neuropharmacology. 2015 Dec;99:379-86.
Verhoest PR et al. Discovery of a novel class of phosphodiesterase 10A inhibitors and identification of clinical candidate 2-[4-(1-methyl-4-pyridin-4-yl-1H-pyrazol-3-yl)-phenoxymethyl]-quinoline (PF-2545920) for the treatment of schizophrenia. J Med Chem.