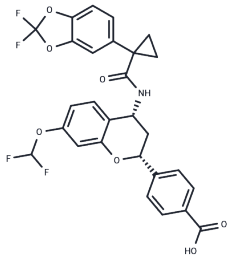
Data Sheet (Cat.No.T22252)

TargetMol

Galicaftor

Chemical Properties



CAS No. : 1918143-53-9

Formula: C28H21F4NO7

Molecular Weight: 559.46

Storage: Store at low temperature
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	Galicaftor (ABBV-2222; GLPG-2222) is a potent and orally active cystic fibrosis transmembrane conductance regulator (CFTR) corrector that enhances CFTR protein folding and trafficking, Galicaftor is widely used in cystic fibrosis research to study CFTR rescue mechanisms, epithelial ion transport, and therapeutic correction of underlying molecular defects.
Targets(IC50)	CFTR
In vitro	In cellular assays using primary patient cells homozygous for the F508del/F508del mutation, Galicaftor demonstrates functional restoration of chloride channel activity with an EC_{50} of < 10 nM [2].
In vivo	In pharmacokinetic studies conducted in rats, Galicaftor has been evaluated for its physiological properties. Following intravenous (i.v.) administration at a dose of 1 mg/kg, the observed half-life (T1/2) is approximately 2.7 h. When administered via the intragastric (oral) route at 1 mg/kg, the molecule exhibits absorption with an oral bioavailability (%F) of 74%. These parameters support the investigation of the molecule in oral dosing regimens within preclinical animal models [1].

Solubility Information

Solubility	DMSO: 80 mg/mL (143 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.7874 mL	8.9372 mL	17.8744 mL
5 mM	0.3575 mL	1.7874 mL	3.5749 mL
10 mM	0.1787 mL	0.8937 mL	1.7874 mL
50 mM	0.0357 mL	0.1787 mL	0.3575 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

Xueqing Wang, et al. Discovery of 4-[(2R,4R)-4-({[1-(2,2-Difluoro-1,3-benzodioxol-5-yl)cyclopropyl]carbonyl} amino)-7-(difluoromethoxy)-3,4-dihydro-2H-chromen-2-yl]benzoic Acid (ABBV/GLPG-2222), a Potent Cystic Fibrosis Transmembrane Conductance Regulator

Ashvani K Singh, et al. Biological Characterization of F508delCFTR Protein Processing by the CFTR Corrector ABBV-2222/GLPG2222. J Pharmacol Exp Ther. 2020 Jan;372(1):107-118.