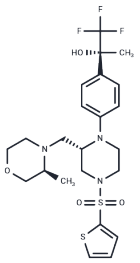
Data Sheet (Cat.No.T14212)

TargetMol

AMG-1694

Chemical Properties



CAS No. : 1361217-07-3

Formula: C23H30F3N3O4S2

Molecular Weight: 533.63

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	AMG-1694, a potent disruptor of the glucokinase-glucokinase regulatory protein (GK-GKRP) complex, operates by promoting the dissociation of this complex, thereby indirectly enhancing GK enzymatic activity with an IC50 of 7 nM. It effectively normalizes blood glucose levels in various rodent diabetes models [1] and lowers blood glucose specifically in diabetic animals without affecting normoglycemic ones. Additionally, AMG-1694 reverses the GKRP-induced inhibition of GK activity and facilitates GK translocation.
Targets(IC50)	Glucokinase
In vitro	AMG-1694 demonstrates high efficacy in reinstating the enzymatic activity of GK in the presence of GKRP with an EC50 of 0.020μM.[1]

Solubility Information

Solubility	DMSO: 50 mg/mL (93.7 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 (3.75 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	1.874 mL	9.3698 mL	18.7396 mL
5 mM	0.3748 mL	1.874 mL	3.7479 mL
10 mM	0.1874 mL	0.937 mL	1.874 mL
50 mM	0.0375 mL	0.1874 mL	0.3748 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

Lloyd DJ, et al. Antidiabetic effects of glucokinase regulatory protein small-molecule disruptors. Nature. 2013 Dec 19;504(7480):437-40.