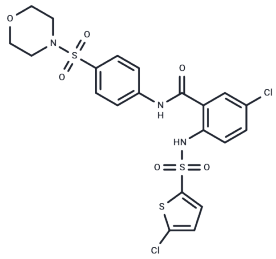
Data Sheet (Cat.No.T21607)

TargetMol

Ataciguat

Chemical Properties



CAS No. : 254877-67-3

Formula: C21H19Cl2N3O6S3

Molecular Weight: 576.49

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	Ataciguat (HMR-1766) (HMR-1766) is a potent and specific soluble guanylate cyclase (sGC) activator.
Targets(IC50)	Guanylate cyclase
In vitro	Ataciguat induces the relaxation in aortic rings or coronary rings. In the presence of nitric oxide synthase (NOS) inhibitor, the endothelium effect was abolished to DETA-NO or ataciguat, in both vessels. Ataciguat was able to induce NO production in HUVECs cells. In the presence of NOS inhibitor, the NO production induced by ataciguat was abolished[1].

Solubility Information

Solubility	DMSO: 95 mg/mL (164.79 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: 3.3 mg/mL (5.72 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	1.7346 mL	8.6732 mL	17.3464 mL
5 mM	0.3469 mL	1.7346 mL	3.4693 mL
10 mM	0.1735 mL	0.8673 mL	1.7346 mL
50 mM	0.0347 mL	0.1735 mL	0.3469 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

Martinelli AM, et, al. In Endothelial Cells, the Activation or Stimulation of Soluble Guanylyl Cyclase Induces the Nitric Oxide Production by a Mechanism Dependent of Nitric Oxide Synthase Activation. J Pharm Pharm Sci. 2018; 21(1):38-45.