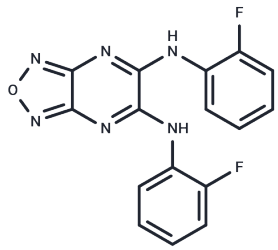
Data Sheet (Cat.No.T14497)

TargetMol

BAM 15

Chemical Properties



CAS No. : 210302-17-3

Formula: C16H10F2N6O

Molecular Weight: 340.29

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	BAM 15 is an uncoupler of mitochondrial protonophore.
Targets(IC50)	OXPHOS,Mitochondrial Metabolism
In vitro	BAM 15 effectively enhances mitochondrial respiration and oxygen consumption across a wide concentration range without increasing reactive oxygen species (ROS), displaying a broader range of action compared to FCCP in myoblasts and hepatocytes. Despite structural differences from FCCP, BAM 15 at concentrations between 100 nM and 1 μM increases the cellular oxygen consumption rate (OCR) similarly to FCCP, but at higher concentrations (1 μM to 50 μM), it sustains uncoupled respiration more effectively across various cell lines. Additionally, BAM 15 causes mitochondrial swelling, indicating its role as a protonophore, and demonstrates greater cell viability than FCCP when used up to 50 μM[1].
In vivo	Animals that receive BAM 15 are protected from kidney injury compared to vehicle-treated mice, such as indicated by lower plasma creatinine levels at 24 and 48 h post-ischemia, reduced tubular necrosis, less obstruction of proximal tubules, less depletion of brush border villi, and less immune cell infiltration[1].

Solubility Information

Solubility	DMSO: 63.75 mg/mL (187.34 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 (5.88 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	2.9387 mL	14.6933 mL	29.3867 mL
5 mM	0.5877 mL	2.9387 mL	5.8773 mL
10 mM	0.2939 mL	1.4693 mL	2.9387 mL
50 mM	0.0588 mL	0.2939 mL	0.5877 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

Kenwood BM, et al. Identification of a novel mitochondrial uncoupler that does not depolarize the plasma membrane. Mol Metab. 2013 Nov 28;3(2):114-23.