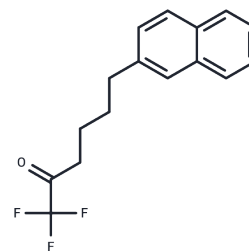


FKGK 18

Chemical Properties

CAS No. : 1071001-09-6
 Formula: C₁₆H₁₅F₃O
 Molecular Weight: 280.28
 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 | FKGK 18 is an inhibitor of group VIA (GVIA) calcium-independent phospholipase A2 (iPLA2). It inhibits GVIA iPLA2 by 99.9% at 0.091 mole fraction in a mixed micelle activity assay and is selective for GVIA iPLA2 over GIVA cPLA2 and GV sPLA2 where it shows 80.8 and 36.8% inhibition, respectively. FKGK 18 inhibits iPLA2 β activity in cytosolic extracts from INS-1 cells overexpressing iPLA2 β (IC ₅₀ = ~50 nM) as well as iPLA2 γ activity in mouse heart membrane fractions (IC ₅₀ s = ~1-3 μ M). It inhibits glucose-induced increases in prostaglandin E2 production and insulin secretion in human pancreatic islets when used at a concentration of 10 μ M and inhibits thapsigargin-induced apoptosis in INS-1 cells overexpressing iPLA2 β in a concentration-dependent manner. FKGK 18 (20 mg/kg, 3 times per week) reduces blood glucose levels in an intraperitoneal glucose tolerance test, decreases the incidence of diabetes, and increases serum insulin levels in non-obese diabetic (NOD) mice. |
| Targets(IC50) | Apoptosis,Others,Phospholipase |

Solubility Information

| | |
|---------------------|--|
| Solubility | DMSO: 20 mg/mL (71.36 mM),Sonication is recommended. DMF: 20 mg/mL (71.36 mM),Sonication is recommended. PBS (pH 7.2): 2 mg/mL (7.14 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: 1 mg/mL (3.57 mM),Sonication is recommended. <i>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.</i> |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|-------|------------|------------|-------------|
| 1 mM | 3.5679 mL | 17.8393 mL | 35.6786 mL |
| 5 mM | 0.7136 mL | 3.5679 mL | 7.1357 mL |
| 10 mM | 0.3568 mL | 1.7839 mL | 3.5679 mL |
| 50 mM | 0.0714 mL | 0.3568 mL | 0.7136 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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