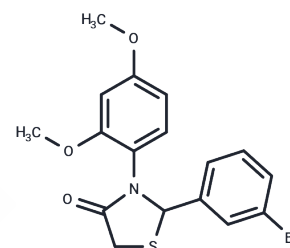


CK-869

Chemical Properties

CAS No. : 388592-44-7
 Formula: C₁₇H₁₆BrNO₃S
 Molecular Weight: 394.28
 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 | CK-869, an Actin-Related Protein 2/3 (ARP2/3) complex inhibitor with an IC ₅₀ of 7 μM, is a valuable tool for investigating the Arp2/3 complex. |
| Targets(IC ₅₀) | Microtubule Associated, Arp2/3 Complex |
| In vitro | CK-869 inhibits comet tail formation by <i>L. monocytogenes</i> with an IC ₅₀ value of 7 μM. It also impairs cell adhesion and cell spreading in MCF10A human breast epithelial cells [1]. |
| Cell Research | Cells were treated in suspension with different concentrations of the compounds, allowed to adhere to the surface of a tissue culture dish for one hour, washed and the number of adherent cells counted and presented as a fraction of untreated cells (10X lens, 10 fields/condition). For cell spreading assays, cells were treated with CK-869 in suspension, plated on coverslips coated with 5 μg/ml fibronectin for imaging [1]. |

Solubility Information

| | |
|---------------------|---|
| Solubility | DMSO: 75 mg/mL (190.22 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 (5.07 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 | 2.5363 mL | 12.6813 mL | 25.3627 mL |
| 5 mM | 0.5073 mL | 2.5363 mL | 5.0725 mL |
| 10 mM | 0.2536 mL | 1.2681 mL | 2.5363 mL |
| 50 mM | 0.0507 mL | 0.2536 mL | 0.5073 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

Yvonne B , Vasquez R J , Jonathan S , et al. Arp2/3 Inhibition Induces Amoeboid-Like Protrusions in MCF10A Epithelial Cells by Reduced Cytoskeletal-Membrane Coupling and Focal Adhesion Assembly[J]. PLoS ONE, 2014, 9 (6):e100943-.

Yamagishi Y , Oya K , Matsuura A , et al. Use of CK-548 and CK-869 as Arp2/3 complex inhibitors directly suppresses microtubule assembly both in vitro and in vivo[J]. Biochemical and Biophysical Research Communications, 2018, 496(3):834-839.

Hetrick B , Han M , Helgeson L , et al. Small Molecules CK-666 and CK-869 Inhibit Actin-Related Protein 2/3 Complex by Blocking an Activating Conformational Change[J]. Chemistry & Biology, 2013, 20(5):701-712.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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