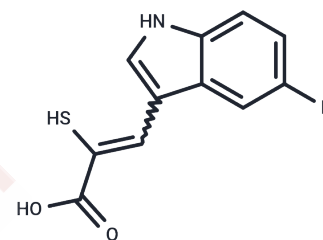


PD 151746

Chemical Properties

CAS No. : 179461-52-0
 Formula: C₁₁H₈FNO₂S
 Molecular Weight: 237.25
 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 | PD151746 is a calpain inhibitor with a 20-fold selectivity for u-calpain ($K_i = 0.26 \pm 0.03 \mu\text{M}$) over m-calpain ($K_i = 5.33 \pm 0.77 \mu\text{M}$). Its IC_{50} values are $0.26 \pm 0.03 \mu\text{M}$ (K_i for μ -calpain) and $5.33 \pm 0.77 \mu\text{M}$ (K_i for m-calpain) [1]. In vitro, PD151746 targets calpain and reduces oxLDL-induced cytotoxicity [2]. |
| Targets(IC_{50}) | Proteasome, Cysteine Protease |
| In vivo | PD151746 reduces the cytotoxicity induced by oxidized low-density lipoprotein (oxLDL) in HMEC-1 cells. It also effectively mitigates the hydrolysis of SLLVY-AMC induced by marine toxins in SY5Y cells. |

Solubility Information

| | |
|---------------------|---|
| Solubility | DMSO: 44 mg/mL (185.46 mM), Sonication is recommended. Ethanol: 44 mg/mL (185.46 mM), Sonication is recommended. H ₂ O: < 1 mg/mL (insoluble or slightly soluble), (< 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 (8.43 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 | 4.215 mL | 21.0748 mL | 42.1496 mL |
| 5 mM | 0.843 mL | 4.215 mL | 8.4299 mL |
| 10 mM | 0.4215 mL | 2.1075 mL | 4.215 mL |
| 50 mM | 0.0843 mL | 0.4215 mL | 0.843 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

Wang KK, et al. Proc Natl Acad Sci U S A. 1996, 93(13), 6687-6692.

Pörn-Ares MI, et al. Biochem J. 2003 Sep 1;374(Pt 2):403-11.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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