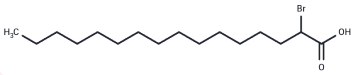
Data Sheet (Cat.No.T35364)

TargetMol

2-Bromohexadecanoic acid

Chemical Properties



CAS No. : 18263-25-7

Formula: C16H31BrO2

Molecular Weight: 335.32

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	2-Bromohexadecanoic acid (2-BP) is a non-metabolizable palmitate analog, an agonist of PPARδ, which acts as a palmitoylation inhibitor and inhibits DHHC-mediated palmitoylation.
Targets(IC50)	Others,Pyroptosis
In vitro	**METHODS**: HepG2 was treated with PA (200 μM) and 2-Bromohexadecanoic acid (25-150 μM) to examine CSC sphere morphology and number. **RESULTS**: 2-Bromohexadecanoic acid (25, 50 and 150 μM) significantly reduced PA-induced CSC sphere formation in HepG2 (75-150 μM and >150 μM.[1]) **METHODS**: ERα or ERα-Cys447Ala-transfected HeLa and HepG2 cells were pretreated with 2-Bromohexadecanoic acid (10 μM) for 30 min, then stimulated with E2 (10 nM) for 10 min, and the target protein expression levels were detected by Western Blot. **RESULTS**: E2 induced ERK and AKT phosphorylation in ERα-transfected HeLa and HepG2 cells. E2-induced signaling kinase activation was completely blocked without affecting the basal level of phosphorylation if the cells were pretreated with the PAT inhibitor 2-Bromohexadecanoic acid.E2 was ineffective in inducing phosphorylation of ERK and AKT in ERα-Cys447Ala mutant-transfected HeLa cells. [2]

Solubility Information

Solubility	Methanol: 100 mg/mL (298.22 mM),Sonication is recommended. DMSO: 257.5 mg/mL (767.92 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: 6 mg/mL (17.89 mM),Solution. *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	2.9822 mL	14.9111 mL	29.8223 mL
5 mM	0.5964 mL	2.9822 mL	5.9645 mL
10 mM	0.2982 mL	1.4911 mL	2.9822 mL
50 mM	0.0596 mL	0.2982 mL	0.5964 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

Chong LW, et al. Targeting protein palmitoylation decreases palmitate-induced sphere formation of human liver cancer cells. Mol Med Rep. 2020 Aug;22(2):939-947.
Acconcia F, et al. Palmitoylation-dependent estrogen receptor alpha membrane localization: regulation by 17beta-estradiol. Mol Biol Cell. 2005 Jan;16(1):231-7.