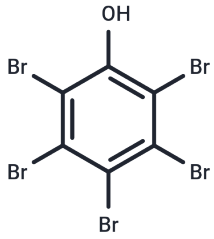
Data Sheet (Cat.No.T20319)

TargetMol

Pentabromophenol

Chemical Properties



CAS No. : 608-71-9

Formula: C6HBr5O

Molecular Weight: 488.59

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	Pentabromophenol (NSC-5717) suppressed TGF-β response by accelerating the turnover rate of TGF-β receptors.
Targets(IC50)	Apoptosis,TGF-beta/Smad
In vitro	Following 18hr exposure of murine BV-2 cells, at dose levels resulting in ≥80% viability (10 and 40 μM), limited alterations in pro-inflammatory responses were observed however, changes were observed in mitochondrial respiration. Basal respiration, ATP-linked respiration, maximum respiration, basal glycolytic and compensatory glycolysis were altered by Pentabromophenol. Phagocytosis was decreased for Pentabromophenol and TBBPA. NLRP3 inflammasome activation was assessed using BV-2-ASC (apoptosis-associated speck-like protein containing a CARD) reporter cells to visualize aggregate formation. Pentabromophenol, showed a direct stimulation of aggregate formation and properties as a NLRP3 inflammasome secondary trigger[1].

Solubility Information

Solubility	DMSO: 80 mg/mL (163.74 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.0467 mL	10.2335 mL	20.4671 mL
5 mM	0.4093 mL	2.0467 mL	4.0934 mL
10 mM	0.2047 mL	1.0234 mL	2.0467 mL
50 mM	0.0409 mL	0.2047 mL	0.4093 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

Bowen C, et al. Mitochondrial-related effects of pentabromophenol, tetrabromobisphenol A, and triphenyl phosphate on murine BV-2 microglia cells. Chemosphere. 2020 Sep;255:126919.
Chen CL, et al. Pentabromophenol suppresses TGF-β signaling by accelerating degradation of type II TGF-β receptors via caveolae-mediated endocytosis. Sci Rep. 2017 Feb 23;7:43206.