

OA-Br-1

Chemical Properties

CAS No. :

Formula: C43H70BrNO8

Molecular Weight: 808.92

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	OA-Br-1 is an orally active, selective inhibitor of PTP1B with an IC50 value of 7.08 μ M. It induces apoptosis and exhibits broad-spectrum anti-cancer cell proliferation activity. OA-Br-1 exerts anti-breast cancer effects both in vitro and in vivo through the PTP1B/PI3K/AKT signaling pathway.
Targets(IC50)	Apoptosis,Phosphatase
In vitro	OA-Br-1 exhibits strong inhibitory activity against PTP1B with an IC50 value of 7.08 μ M, while its inhibitory effect on TCPTP is weaker, with an IC50 of 222.28 μ M [1]. It inhibits the proliferation of breast cancer cells (MCF-7, MDA-MB-231, MDA-MB-453) in a concentration- and time-dependent manner, with IC50 values of 8.76, 18.13, and 22.34 μ M at 72 hours, respectively [1]. OA-Br-1 (5-30 μ M; 48 h) induces apoptosis in MCF-7 and MDA-MB-231 cells [1] and increases the thermal stability of PTP1B [1]. Additionally, OA-Br-1 reduces colony formation in these cells dose-dependently [1] and decreases protein levels of p-PI3K and p-AKT, indicating its antitumor activity through the PTP1B/PI3K/AKT pathway in breast cancer cells [1].
In vivo	OA-Br-1 (30-60 mg/kg; oral administration; daily) exhibits antitumor effects in a BALB/c female nude mouse model with subcutaneously implanted MCF-7 cells by inhibiting the PTP1B/PI3K/AKT signaling pathway [1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.2362 mL	6.1811 mL	12.3622 mL
5 mM	0.2472 mL	1.2362 mL	2.4724 mL
10 mM	0.1236 mL	0.6181 mL	1.2362 mL
50 mM	0.0247 mL	0.1236 mL	0.2472 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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