Product Data Sheet

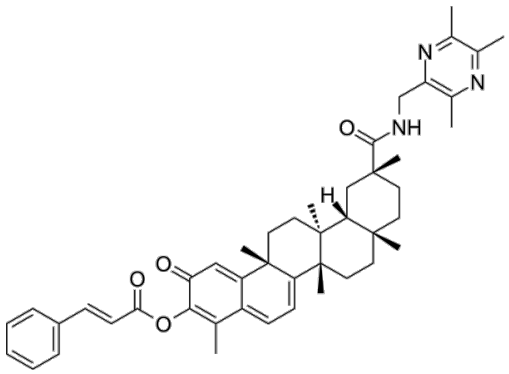
Product Name: PRDX1-IN-1
Cat. No.: GC73232

Chemical Properties

Cas. No.

Formula	$C_{46}H_{55}N_3O_4$	M.Wt	713.95
Solubility	DMSO : 100 mg/mL (140.07 mM; Need ultrasonic)	Storage	-20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		

Structure



Background

PRDX1-IN-1 is a selective inhibtor of PRDX1 with an IC50 value of 0.164 μM. PRDX1-IN-1 can be used in researches related to cancer.PRDX1-IN-1 promots intracellular ROS accumulation, and inhibits the proliferation, invasion and migration of cancer cells besides inducing apoptosis. PRDX1-IN-1 could be used in cancer research.

PRDX1-IN-1 inhibites the proliferation activities of the human lung cancer cells A549, lung cancer cell lines (LTEP-a-2 and H1975), human breast cancer cell line (MDA-MB-231), human hepatoma cell

Product Data Sheet

line (SK-Hep-1) with the IC50 values of 1.92 μM, 2.93 μM, 1.99 μM, 2.67 μM, 2.42μM, respectively[1].PRDX1-IN-1 (compound 7e)(2 μM or 4 μM, 24 h) promotes intracellular ROS accumulation, and inhibits the invasion and migration of human lung cancer cells A549[1].PRDX1-IN-1 (2 μM or 4 μM, 24 h) induces the apoptosis of A549 cells[1].PRDX1-IN-1 (2 μM or 4 μM, 6 h) suppresses the key signaling pathways (AKT and ERK) and promotes the expression of apoptosis-related proteins (cleaved caspase-3/8 and cleaved PARP) in A549 cells[1].

PRDX1-IN-1 (0.5 or 1 mg/kg, intraperitoneal(i.p.), 19 days, every day) inhibited tumor growth in a mouse model of lung cancer[1].

References:
[1]. Ying Bai, et al. Development of novel celastrol-ligustrazine brids as potent peroxiredoxin 1 inhibitors against lung cancer. Eur J Med Chem. 2023, 259, 115656.

Caution: Product has not been fully validated for medical applications. For research use only.
Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA