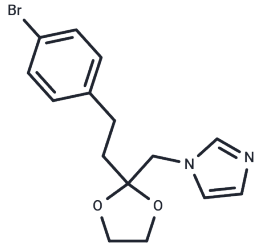
Data Sheet (Cat.No.T41175)

TargetMol

OB 24 hydrochloride

Chemical Properties



CAS No. : 939825-12-4

Formula: C15H18BrClN2O2

Molecular Weight: 373.68

Storage: Keep away from moisture
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	OB 24 hydrochloride is a selective, orally active HO-1 inhibitor (IC50=1.9 μM) exhibiting antitumor and anti-metastatic properties, suitable for studying prostate cancer, melanoma, ovarian cancer, and lung cancer metastasis.
Targets(IC50)	ROS
In vitro	OB 24 hydrochloride (10 μM, 24-48 h) inhibited approximately 20% growth and 62% HO-1 expression in PC3M cells. OB 24 hydrochloride (10 μM, 96 h) suppressed intracellular ROS by 25% [1]. OB 24 hydrochloride (6.5 μM) reduced cell proliferation by approximately 10%, HO-1 activity by 59%, and intracellular ROS by 43% in HO-1-overexpressing rat glioma C6 cells [1]. OB 24 hydrochloride (5-10 μM, 10 min) reduced MAPK ERK and p38 kinase activity, producing similar inhibition in LNCaP and DU145 cells [1].
In vivo	OB 24 hydrochloride (10-60 mg/kg; intraperitoneal injection; days 1, 3, and 5 of each cycle for 4 cycles) dose-dependently inhibited tumor growth in PC3M Scid male mice without causing weight loss [1]. OB 24 hydrochloride (30 mg/kg; intravenous injection; days 1, 3, and 5 of each cycle, for 4 cycles) reduced tumor growth by approximately 50% and inhibited lymph node and lung metastasis in PC3M Scid male mice with palpable advanced prostate cancer [1].

Solubility Information

Solubility	DMSO: 80 mg/mL (214.09 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6761 mL	13.3804 mL	26.7609 mL
5 mM	0.5352 mL	2.6761 mL	5.3522 mL
10 mM	0.2676 mL	1.338 mL	2.6761 mL
50 mM	0.0535 mL	0.2676 mL	0.5352 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

Alaoui-Jamali MA, et al. A novel experimental heme oxygenase-1-targeted therapy for hormone-refractory prostate cancer. Cancer Res. 2009;69(20):8017-8024.

Moulay. Alaoui-Jamali, et al., OB-24, a novel selective and potent HO-1 inhibitor, induces a wide spectrum anti-tumor activity in vitro and in vivo and synergizes with chemotherapy drugs. Mol Cancer Ther 1 November 2007; 6 (11_Supplement): C82.

Roman, G., et al., (2007). Heme oxygenase inhibition by 2-oxy-substituted 1-(1H-imidazol-1-yl)-4-phenylbutanes: effect of halogen substitution in the phenyl ring. Bioorganic & medicinal chemistry, 15(9), 3225-3234