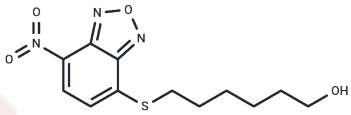
Data Sheet (Cat.No.T12189)

TargetMol

NBDHEX

Chemical Properties



CAS No. :	787634-60-0
Formula:	C12H15N3O4S
Molecular Weight:	297.33
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	NBDHEX is a potent inhibitor of glutathione S-transferase P1-1 (GSTP1-1).
Targets(IC50)	Apoptosis,Glutathione Peroxidase,Autophagy,GST
In vitro	NBDHEX not only is cytotoxic toward the parental small cell lung cancer H69 cell line (LC (50) of 2.3 +/- 0.6 micromol/L) but also overcomes the multidrug resistance of its variant, H69AR, which overexpresses the ATP-binding cassette transporter multidrug resistance-associated protein 1 (MRP1;?LC(50) of 4.5 +/- 0.9 micromol/L).?Drug efflux experiments, done in the presence of a specific inhibitor of MRP1, confirmed that NBDHEX is not a substrate for this export pump [1].
In vivo	NBDHEX, In female mice, treatment results in a statistically significant tumour inhibition (approximately 70%) [1].

Solubility Information

Solubility	DMSO: 145 mg/mL (487.67 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: 4 mg/mL (13.45 mM),Sonication is recommended. *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	3.3633 mL	16.8163 mL	33.6327 mL
5 mM	0.6727 mL	3.3633 mL	6.7265 mL
10 mM	0.3363 mL	1.6816 mL	3.3633 mL
50 mM	0.0673 mL	0.3363 mL	0.6727 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

Filomeni G, et al. 6-(7-Nitro-2,1,3-benzoxadiazol-4-ylthio)hexanol, a specific glutathione S-transferase inhibitor, overcomes the multidrug resistance (MDR)-associated protein 1-mediated MDR in small cell lung cancer. Mol Cancer Ther. 2008 Feb;7(2):371-9.

Sha HH, et al. 6-(7-nitro-2,1,3-benzoxadiazol-4-ylthio) hexanol: a promising new anticancer compound. Biosci Rep. 2018 Feb 13;38(1). pii: BSR20171440.