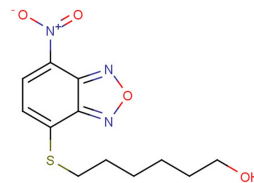


NBDHEX

Chemical Properties

| | |
|-------------------|--|
| CAS No.: | 787634-60-0 |
| Formula: | C ₁₂ H ₁₅ N ₃ O ₄ S |
| Molecular Weight: | 297.33 |
| Appearance: | N/A |
| Storage: | 0-4°C for short term (days to weeks), or -20°C for long term (months). |



Biological Description

| | |
|----------------------------|---|
| Description | NBDHEX is a potent inhibitor of glutathione S-transferase P1-1 (GSTP1-1) . |
| Targets(IC ₅₀) | Others: None |
| 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 a statistically significant tumour inhibition (approximately 70%)[1]. |

Solubility Information

| | |
|------------|---|
| Solubility | DMSO: 125 mg/mL (420.41 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble) |
|------------|---|

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|-------|----------|-----------|-----------|
| 1 mM | 3.363 mL | 16.816 mL | 33.633 mL |
| 5 mM | 0.673 mL | 3.363 mL | 6.727 mL |
| 10 mM | 0.336 mL | 1.682 mL | 3.363 mL |
| 50 mM | 0.067 mL | 0.336 mL | 0.673 mL |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

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.

Inhibitors · Natural Compounds · Compound Libraries

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