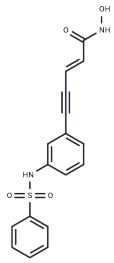
# Data Sheet (Cat.No.T16415)

TargetMol

## Oxamflatin

### Chemical Properties



CAS No. : 151720-43-3

Formula: C17H14N2O4S

Molecular Weight: 342.37

Storage: Store at low temperature
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

### Biological Description

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|---|---|
| Description | Oxamflatin (Metacept-3) is a selective histone deacetylase (HDAC) inhibitor characterized by high potency (IC50 = 15.7 nM) and the presence of an alkyne group capable of undergoing azide-alkyne cycloaddition reactions (CuAAc). |
| Targets(IC50) | HDAC |
| In vitro | Methods: HeLa cells were cultured for 24 hours, and 1 mg/ml of Oxamflatin (Metacept-3) was added to the cultures at 0 hours. After the indicated incubation times, cells were harvested and their isolated nuclei were analyzed by flow cytometry; the distribution of cells in the cell cycle was determined using ModFit LT software.<br>Results: Oxamflatin caused HeLa cells to have an elongated cell shape with filamentous processes and cell cycle arrest in the G1 phase. [1] |
| In vivo | Methods: Oxamflatin (Metacept-3) (8±50 mg/kg, intraperitoneal injection) was used in mice with B16 melanoma cell tumor xenografts at days 1, 3, 5, 7, 9, and 11 after inoculation. The increase in lifespan (ILS) of mice transplanted with B16 murine melanoma tumors after treatment with oxam¯atin was measured, and the number of days of survival was calculated and the ILS% was calculated.<br>Results: Six injections of oxamflatin at a dose of 20 mg/kg each time significantly increased the number of days of survival of mice (38% of ILS); the ILS of mice treated with 50 mg/kg of oxamflatin was calculated to be over 67%, and one mouse survived for more than 60 days after tumor inoculation. No side effects such as weight loss were observed, at least until this dose. [1] |

### Solubility Information

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|---|---|
| Solubility | DMSO: 125 mg/mL (365.1 mM),Sonication is recommended.<br>(< 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 (11.68 mM),Sonication is recommended.<br>*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 | 2.9208 mL | 14.6041 mL | 29.2082 mL |
| 5 mM | 0.5842 mL | 2.9208 mL | 5.8416 mL |
| 10 mM | 0.2921 mL | 1.4604 mL | 2.9208 mL |
| 50 mM | 0.0584 mL | 0.2921 mL | 0.5842 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

Kim YB, et al. Oxamflatin is a novel antitumor compound that inhibits mammalian histone deacetylase. Oncogene. 1999 Apr 15;18(15):2461-70.

Wang YL, et al. HDAC Inhibitor Oxamflatin Induces Morphological Changes and has Strong Cytostatic Effects in Ovarian Cancer Cell Lines. Curr Mol Med. 2016;16(3):232-42.

Faghihloo E, et al. The effect of oxamflatin on the E-cadherin expression in gastric cancer cell line. Cancer Gene Ther. 2016 Nov;23(11):396-399.

Su J, et al. Oxamflatin significantly improves nuclear reprogramming, blastocyst quality, and in vitro development of bovine SCNT embryos. PLoS One. 2011;6(8):e23805.



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