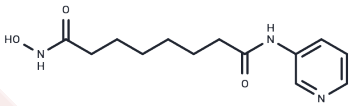
# Data Sheet (Cat.No.T7664)

TargetMol

## Pyroxamide

### Chemical Properties



CAS No. : 382180-17-8

Formula: C13H19N3O3

Molecular Weight: 265.31

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

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|---|---|
| Description | Pyroxamide is an histone deacetylases (HDACs) inhibitor with antineoplastic properties ( HDAC1;IC50: 0.1-0.2 μM). |
| Targets(IC50) | Apoptosis,HDAC |
| In vitro | The activity of pyroxamide as an inhibitor of HDACs.?Pyroxamide inhibited the enzymatic activity of affinity-purified HDAC1 at submicromolar concentrations ?.?The ID50 value for inhibition of HDAC1 activity by pyroxamide was ~100 nm.MEL cells incubated with pyroxamide (4 μm) for 4, 24, or 48 h showed accumulation of acetylated histones H2A, H2B, H3, and H4 .?Cells cultured without the agent had low basal levels of acetylated histones at the same time points[1] |
| In vivo | Pyroxamide may be a useful agent for the treatment of malignancy and that induction of p21/WAF1 in transformed cells by pyroxamide may contribute to the antitumor effects of this agent[1]. |
| Cell Research | HDAC1 enzyme assay, ?A MEL cell line expressing the epitope Flag-tagged HDAC1 was generated.?HDAC1-Flag was affinity purified by immunoprecipitation using M2 anti-Flag antibody-coated agarose, followed by elution from the agarose using the Flag peptide.?[3H]acetate-labeled cellular histones were prepared from MEL cells and were used as a substrate for the HDAC activity assay.?Released [3H]acetic acid was quantified by scintillation counting.?For inhibition studies, the enzyme preparations were preincubated with pyroxamide (10 to 100,000 nm) for 30 min at 4°C.[1] |

### Solubility Information

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|---|---|
| Solubility | DMSO: 250 mg/mL (942.29 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 (15.08 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 | 3.7692 mL | 18.8459 mL | 37.6918 mL |
| 5 mM | 0.7538 mL | 3.7692 mL | 7.5384 mL |
| 10 mM | 0.3769 mL | 1.8846 mL | 3.7692 mL |
| 50 mM | 0.0754 mL | 0.3769 mL | 0.7538 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

Butler L M , Webb Y , Agus D B , et al. Inhibition of transformed cell growth and induction of cellular differentiation by pyroxamide, an inhibitor of histone deacetylase[J]. Clinical Cancer Research, 2001, 7(4):962-970.
Chen W, Liao Y, Sun P, et al.Construction of an ER stress-related prognostic signature for predicting prognosis and screening the effective anti-tumor drug in osteosarcoma.Journal of Translational Medicine.2024, 22(1): 1-19.