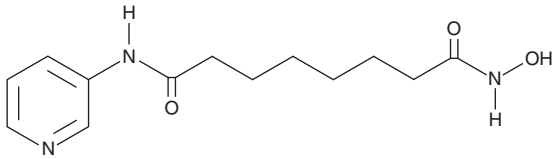
PRODUCT INFORMATION

Pyroxamide

Item No. 13870

CAS Registry No.: 382180-17-8
Formal Name: N^1-hydroxy-N^8-3-pyridinyl-octanediamide
MF: $C_{13}H_{19}N_3O_3$
FW: 265.3
Purity: ≥95%
UV/Vis.: λ_{max}: 203, 241, 279 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Pyroxamide is supplied as a crystalline solid. A stock solution may be made by dissolving the pyroxamide in the solvent of choice, which should be purged with an inert gas. Pyroxamide is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of pyroxamide in these solvents is approximately 5 and 2 mg/ml, respectively.

Pyroxamide is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, pyroxamide should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Pyroxamide has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Pyroxamide is an inhibitor of histone deacetylases (HDACs), including HDAC1 (IC_{50} = 0.1-0.2 µM).[1,2] It induces growth suppression and cell death of certain types of cancer cells in culture.[1,3]

References

1. 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. *Clin. Cancer Res.* **7**, 962-970 (2001).
2. Remiszewski, S.W., Sambucetti, L.C., Atadja, P., *et al.* Inhibitors of human histone deacetylase: Synthesis and enzyme and cellular activity of straight chain hydroxamates. *J. Med. Chem.* **45(4)**, 753-757 (2002).
3. Kutko, M.C., Glick, R.D., Butler, L.M., *et al.* Histone deacetylase inhibitors induce growth suppression and cell death in human rhabdomyosarcoma *in vitro*. *Clin. Cancer Res.* **9**, 5749-5755 (2003).

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