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Technical Data Sheet

Zebularine

Catalog Number :3691061

RUO: For Research Use Only. Not for use in diagnostic procedures.

Product Information

Synonyms: IN1416, CHEMBL286977, pyrimidin-2-one ribonucleoside, NSC 309132

Chemical Name: 1-[3,4-dihydroxy-5-(hydroxymethyl)oxolan-2-yl]pyrimidin-2-one

Molecular Formula: $C_9H_{12}N_2O_5$

Molecular Weight: 228.2

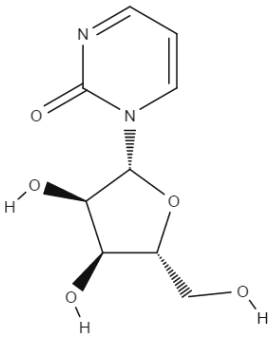
CAS Number: 3690-10-6

Purity: ≥98%

Applications: FA

Formulation: Crystalline solid

Storage: Product should be kept at -20°C.



Description

Zebularine is a nucleoside analog of cytidine that inhibits DNA methylation and tumor growth. It functions by forming a complex with DNA methyltransferases and stabilizing their binding to DNA. Zebularine also inhibits cytidine deaminase and is reported to induce the differentiation of mesenchymal stem cells into cardiomyocytes.

Preparation & Storage

Soluble in organic solvents such as ethanol or DMSO. DMSO up to 60mM.

References

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2. Zhou, L., Cheng, X., Connolly, B. A., Dickman, M. J., Hurd, P. J., Hornby, D. P. (2002). Zebularine: a novel DNA methylation inhibitor that forms a covalent complex with DNA methyltransferases.;Journal of molecular biology,;321(4), 591-599.

3. Addison, M. K., Coley, L. W., Gentry, G. T., Godke, R. A., Bondioli, K. R. (2011). 209 epigenetic modification with zebularine and valproic acid and expression of pluripotency genes in bovine adipose stem cells.;Reproduction, Fertility and Development,;24(1), 216-217.

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