

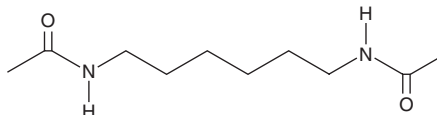
PRODUCT INFORMATION



Hexamethylene bisacetamide

Item No. 30859

CAS Registry No.: 3073-59-4
Formal Name: N,N'-1,6-hexanediylbis-acetamide
Synonyms: HMBA, NSC 95580
MF: $C_{10}H_{20}N_2O_2$
FW: 200.3
Purity: $\geq 95\%$
Supplied as: A 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

Hexamethylene bisacetamide is supplied as a solid. A stock solution may be made by dissolving the hexamethylene bisacetamide in the solvent of choice, which should be purged with an inert gas. Hexamethylene bisacetamide is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of hexamethylene bisacetamide in ethanol and DMF is approximately 5 mg/ml and approximately 10 mg/ml in DMSO.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of hexamethylene bisacetamide can be prepared by directly dissolving the solid in aqueous buffers. The solubility of hexamethylene bisacetamide in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Hexamethylene bisacetamide is a tumor cell-differentiating agent.¹ It induces complete differentiation of 754A murine erythroleukemia cells when used at a concentration of 5 mM. Hexamethylene bisacetamide also induces latent HIV-1 viral production in chronically HIV-1-infected U1 cells in a concentration-dependent manner.² Implantation of HT-29 colon cancer cells cultured with hexamethylene bisacetamide for seven, but not 28, days reduces tumorigenesis of those cells in mice.³

References

1. Reuben, R.C., Wife, R.L., Breslow, R., *et al.* A new group of potent inducers of differentiation in murine erythroleukemia cells. *Proc. Natl. Acad. Sci. USA* **73**(3), 862-866 (1976).
2. Contreras, X., Barboric, M., Lenasi, T., *et al.* HMBA releases P-TEFb from HEXIM1 and 7SK snRNA via PI3K/Akt and activates HIV transcription. *PLoS Pathog.* **3**(10), 1459-1469 (2007).
3. Schroy, P., Winawer, S., and Friedman, E. Effect on in vivo tumorigenicity of lengthy exposure of human colon cancer cells to the differentiation agent hexamethylene bisacetamide. *Cancer Lett.* **48**(1), 53-58 (1989).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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