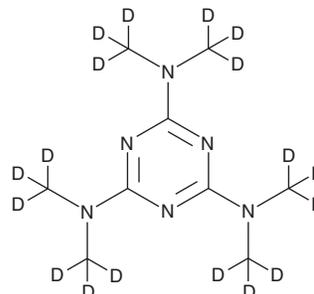


PRODUCT INFORMATION



Altretamine-d₁₈ Item No. 9003471

CAS Registry No.: 65886-69-3
Formal Name: N,N,N',N',N'',N''-hexa(methyl-d₃)-1,3,5-triazine-2,4,6-triamine
Synonyms: Hexamethylmelamine-d₁₈, HMM-d₁₈, 2,4,6-Tris(dimethylamino)-1,3,5-triazine-d₁₈
MF: C₉D₁₈N₆
FW: 228.4
Chemical Purity: ≥98% (Altretamine)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₁₈); ≤1% d₀
UV/Vis.: λ_{max}: 226 nm
Supplied as: A neat solid
Storage: 4°C
Stability: ≥2 years



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

Laboratory Procedures

Altretamine-d₁₈ is intended for use as an internal standard for the quantification of altretamine (Item No. 23662) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Altretamine-d₁₈ is supplied as a neat solid. A stock solution may be made by dissolving the altretamine-d₁₈ in the solvent of choice, which should be purged with an inert gas. Altretamine-d₁₈ is soluble in organic solvents such as chloroform and methanol. Altretamine-d₁₈ is soluble in chloroform and slightly soluble in methanol.

Description

Altretamine is an anticancer agent.¹ It induces cytotoxicity in an ovarian cancer cell line when used at a concentration of 10 µg/ml.² Altretamine (0.5 mM) inhibits glutathione peroxidase 4 (GPX4) and induces accumulation of lipid-reactive oxygen species (ROS) in U-2932 cells without depleting glutathione (GSH) levels, suggesting it is a class II ferroptosis-inducing compound (FIN).³ *In vivo*, altretamine (150 mg/kg) reduces tumor growth in an M5076 murine sarcoma model.¹ Formulations containing altretamine have been used in the treatment of ovarian cancer.

References

- Langdon, S.P., Simmonds, R.J., and Stevens, M.F.G. Triazines and related products. Part 26. Synthesis and chemistry of bicyclic analogues of the antitumour drug 2,4,6-tris(dimethylamino)-1,3,5-triazine (hexamethylmelamine). *J. Chem. Soc. Perkin Trans. 1* 993-998 (1984).
- D'Incalci, M., Erba, E., Balconi, G., *et al.* Time dependence of the *in vitro* cytotoxicity of hexamethylmelamine and its metabolites. *Br. J. Cancer* **41**(4), 630-635 (1980).
- Woo, J.H., Shimoni, Y., Yang, W.S., *et al.* Elucidating compound mechanism of action by network perturbation analysis. *Cell* **162**(2), 441-451 (2015).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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