

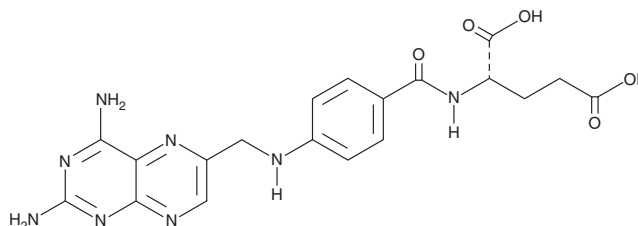
PRODUCT INFORMATION



Aminopterin

Item No. 21802

CAS Registry No.: 54-62-6
Formal Name: N-[4-[[[(2,4-diamino-6-pteridiny)methyl]amino]benzoyl]-L-glutamic acid
Synonyms: 4-amino Folic Acid, 4-amino PGA, APGA, NSC 739
MF: C₁₉H₂₀N₈O₅
FW: 440.4
Purity: ≥95%
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

Aminopterin is supplied as a crystalline solid. A stock solution may be made by dissolving the aminopterin in the solvent of choice, which should be purged with an inert gas. Aminopterin is slightly soluble in ethanol. It is also moderately soluble in water. We do not recommend storing the aqueous solution for more than one day.

Description

Aminopterin is a synthetic folic acid (Item No. 20515) derivative whose metabolite is a competitive inhibitor of dihydrofolate reductase, which is a cofactor for nucleic acid synthesis. Aminopterin has anticancer and immunosuppressive properties. Formulations containing it have been used for pediatric leukemia though methotrexate (Item No. 13960) is now more commonly used due to a more favorable therapeutic index.¹⁻³ Aminopterin is a component of the widely used HAT (hypoxanthine-aminopterin-thymidine) medium to select cells for mammalian cell culture.⁴

References

- Farber, S., Diamond, L.K., Mercer, R.D., *et al.* Temporary remissions in acute leukemia in children produced by folic acid antagonist, 4-aminopteroyl-glutamic acid. *N. Engl. J. Med.* **238(23)**, 787-793 (1948).
- Goldin, A., Venditti, J.M., Humphreys, S.R., *et al.* A quantitative comparison of the antileukemic effectiveness of two folic acid antagonists in mice. *J. Natl. Cancer Inst.* **15(6)**, 1657-1664 (1955).
- Cole, P.D., Drachtman, R.A., Smith, A.K., *et al.* Phase II trial of oral aminopterin for adults and children with refractory acute leukemia. *Clin. Cancer Res.* **11(22)**, 8089-8096 (2005).
- Littlefield, J.W. Selection of hybrids from matings of fibroblasts *in vitro* and their presumed recombinants. *Science* **145(3633)**, 709-710 (1964).

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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