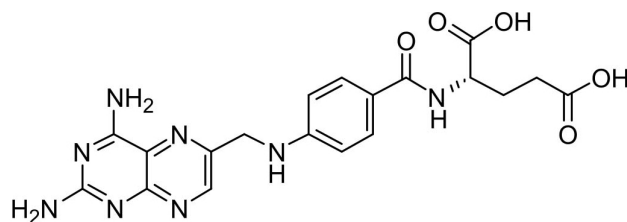


## Aminopterin

Pack sizes.: 0.1mg, 0.5mg



### Synonyms:

4-Aminofolic acid, 4-Aminopteroylglutamic acid, APGA, Aminopterine, NSC 739, Pteramina

## Specifications

CAS #	: <b>54-62-6</b>
Molecular Formula	: <b>C19H20N8O5</b>
Molecular Weight	: <b>440.41</b>
Source	: -
Appearance	: <b>Orange-brown solid</b>
Purity	: <b>&gt;95% by HPLC</b>
Long Term Storage	: <b>-20°C</b>
Solubility	: <b>Soluble in methanol or DMSO</b>

## Application Notes

Aminopterin (4-aminopteroic acid) is the 4-amino derivative of folic acid. Aminopterin is a potent competitive inhibitor of dihydrofolate reductase thereby blocking tetrahydrofolate synthesis. Aminopterin was used clinically against pediatric acute lymphoblastic leukemia and some solid tumors. Conjugates of aminopterin have immunosuppressive activity. Aminopterin was withdrawn from clinical development in favor of its less toxic methylated derivative, methotrexate.

## References

1. Inhibition of dihydrofolic reductase by aminopterin and amethopterin. Osborn M.J. et al. Proc. Soc. Exp. Biol. Med 1958, 97, 429.
2. Temporary remissions in acute leukaemia in children produced by folic acid antagonist, 4-aminopteroylglutamic acid (aminopterin). Faber S. et al. NEJM 1948, 238, 787.
3. Methotrexate-albumin and aminopterin-albumin effectively prevent experimental acute graft-versus-host disease. Wolff D. et al. Transplantation 2006, 82, 527.