Catalog Number: 100623, 194622

Aminopterin

Structure:

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Molecular Formula: C_{19}H_{20}N_{8}O_{5}

Molecular Weight: 476.45

CAS #: 54-62-6

Synonyms: 4-Aminofolic acid; 4-Aminopteroylglutamic acid; N-[4-[[2,4-Diamino-6-pteridinyl)methyl]amino]benzoyl]-L-glutamic acid; 4-amino-PGA

Physical Description: Yellow powder

Description: Used as a rodenticide. An inhibitor of dihydrofolate reductase; a folic acid antagonist. Aminopterin is actively transported into cells by the folate transporter. In the cell, it is converted to a high molecular weight polyglutamate metabolite by folic acid synthase, that, in turn, binds to dihydrofolate reductase and inhibits it activity. Aminopterin-polyglutamate is degraded intracellularly by gamma-glutamyl hydrolase.

Solubility: Soluble in 1 M Ammonium hydroxide (50 mg/ml - clear, bright yellow solution), 1 M Sodium hydroxide (50 mg/ml - clear, yellow solution) or DMSO.

Availability:

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Description</th>
<th>Size</th>
</tr>
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<td>100623</td>
<td>Aminopterin</td>
<td>10 mg, 25 mg, 50 mg, 100 mg, 250 mg, 500 mg</td>
</tr>
<tr>
<td>194622</td>
<td>Aminopterin, Cell Culture Reagent</td>
<td>10 mg, 25 mg, 100 mg</td>
</tr>
</tbody>
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References:
– Merck Index, 12th Ed., No. 493.