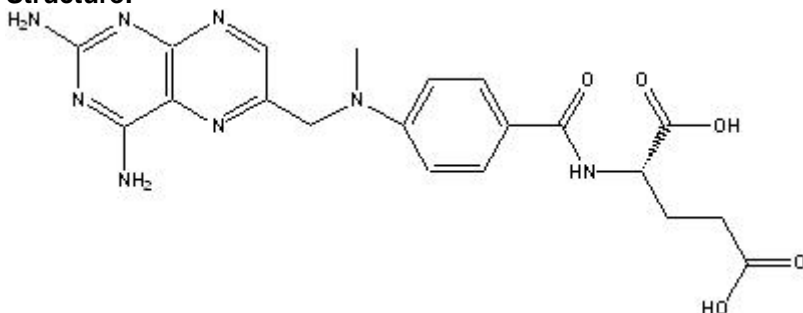


TECHNICAL INFORMATION

Catalog Number: 102299, 194708

Methotrexate

Structure:



Molecular Formula: C₂₀H₂₂N₈O₅

Molecular Weight: 454.4

CAS #: 59-05-2

Synonyms: Amethopterin; N-[4-[[[(2,4-Diamino-6-pteridiny) methyl] methylamino] benzoyl]-L- glutamic acid; 4-amino-N10-methylpteroylglutamic acid; 4-amino-10-methylfolic acid; methylaminopterin; MTX; CL-14377; Emtexate; Ledertrexate; A-Methopterin; Rheumatrex

Solubility: Soluble in alkaline solutions with decomposition.¹ Insoluble in water, ethanol, chloroform and ether. MP recommends to make solutions fresh for each use.

Description: Folic Acid antagonist; structurally similar to folic acid. Methotrexate is a mixture of 4-amino-10-methylfolic acid and closely related compounds. A potent anticancer agent. Blocks DNA synthesis by blocking the production of tetrahydrofolate cofactors required for the synthesis of thymidine. Methotrexate is actively transported into cells by the folate transporter. In the cell, it is converted to a high molecular weight polyglutamate metabolite by folypolyglutamate synthase that, in turn, binds to dihydrofolate reductase and inhibits its activity. Methotrexate-polyglutamate is degraded intracellularly by gamma-glutamyl hydrolase.

Availability:

Catalog Number	Description	Size
102299	Methotrexate, U.S.P. Grade	10 mg 25 mg 100 mg 500 mg 1 g
194708	Methotrexate, cell culture reagent	10 mg 25 mg 100 mg 500 mg

Also Available:

Catalog Number	Description	Size
191297	Methotrexate - Agarose, 8 atoms hydrophilic spacer arm; contains 10-15 umoles of ligand per ml gel. Applications: purification of dihydrofolate reductase	5 ml

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