

# Methotrexate

Catalog No: tcsc1732



## Available Sizes

**Size:** 100mg

**Size:** 500mg



## Specifications

**CAS No:**

59-05-2

**Formula:**

$C_{20}H_{22}N_8O_5$

**Pathway:**

Cell Cycle/DNA Damage;Antibody-drug Conjugate/ADC Related

**Target:**

Antifolate;ADC Cytotoxin

**Purity / Grade:**

>98%

**Solubility:**

DMSO :  $\geq 30$  mg/mL (66.02 mM)

**Alternative Names:**

Amethopterin;CL14377;WR19039

**Observed Molecular Weight:**

454.44

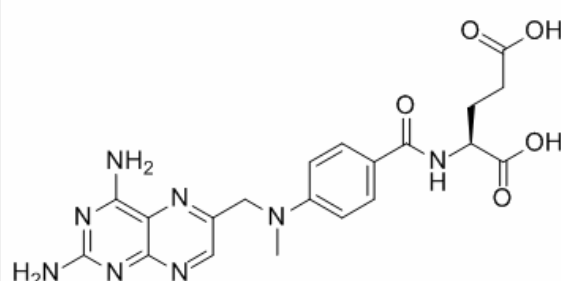
## Product Description

Methotrexate is a traditional **folate** antagonist, with median **IC<sub>50</sub>** of 78 nM for a 120 h drug exposure in a panel of six pediatric leukemia and lymphoma cell lines using the sulforhodamine B assay.

IC50 & Target: Antifolate<sup>[1]</sup>

***In Vitro:*** Methotrexate (MTX), which has a more predictable toxicity profile than aminopterin, has become a cornerstone of the treatment for childhood acute lymphoblastic leukemia (ALL) and for non-Hodgkins lymphoma<sup>[1]</sup>.

***In Vivo:*** Methotrexate (MTX) exposure reduces thymus and spleen indices of mice. Methotrexate markedly decreases white blood cells, thymic and splenic lymphocytes at dose  $\geq 5$  mg/kg. However, there is a significant difference between the treatment plus control group and the model group (p[2]).



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!