

# Folinic acid

Catalog No: tcsc2989



## Available Sizes

Size: 100mg



## Specifications

### CAS No:

58-05-9

### Formula:

$C_{20}H_{23}N_7O_7$

### Pathway:

Cell Cycle/DNA Damage;Metabolic Enzyme/Protease

### Target:

Antifolate;Endogenous Metabolite

### Purity / Grade:

>98%

### Solubility:

10 mM in DMSO

### Alternative Names:

leucovorin

### Observed Molecular Weight:

473.44

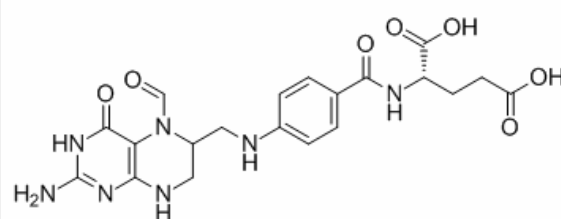
## Product Description

Folinic acid is an adjuvant used in cancer chemotherapy involving the drug methotrexate.

Target: Antifolate

Folinic acid is a 5-formyl derivative of tetrahydrofolic acid. It is readily converted to other reduced folic acid derivatives (e.g.,

tetrahydrofolate), and, thus, has vitamin activity that is equivalent to that of folic acid. Since it does not require the action of dihydrofolate reductase for its conversion, its function as a vitamin is unaffected by inhibition of this enzyme by drugs such as methotrexate. In 1980s, however, folinic acid was found to reactivate the dihydrofolate reductase itself even when methotrexate exists. Although the mechanism is not very clear, the polyglutamylation of methotrexate and dihydrofolate in malignant cells is considered to play an important role in the selective reactivation of dihydrofolate reductase by folinic acid in normal cells [1]. Folinic acid is generally administered along with MTX as a rescue agent to decrease MTX-induced toxicity. However, information regarding the inhibitory effect of folinic acid against cytogenetic damage caused by MTX is limited. This study was conducted to assess the cytogenetic effect of MTX and its inhibition by folinic acid (FA) using the micronucleus and chromosomal aberration assays concurrently [2].



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