

Hydroxyurea

Catalog No: tcsc2353



Available Sizes

Size: 1g

Size: 5g



Specifications

CAS No:

127-07-1

Formula:

$\text{CH}_4\text{N}_2\text{O}_2$

Pathway:

Cell Cycle/DNA Damage;Autophagy

Target:

DNA/RNA Synthesis;Autophagy

Purity / Grade:

>98%

Solubility:

H₂O : ≥ 55 mg/mL (723.21 mM); DMSO : ≥ 50 mg/mL (657.46 mM)

Alternative Names:

Hydroxycarbamide

Observed Molecular Weight:

76.05

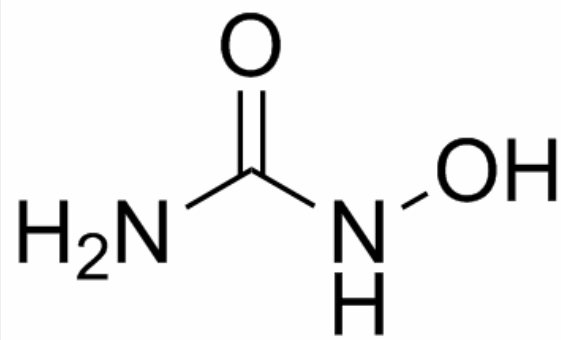
Product Description

Hydroxyurea is a cell apoptosis inducer that inhibit**DNA** synthesis through inhibition of ribonucleotide reductase.

In Vitro:

Hydroxyurea is used in a number of myeloproliferative, neoplastic, HIV, and non-hematological diseases^[1]. Treatment of cells in primary culture with 30 μ M hydroxyurea for 96 hours significantly increases the fractional HbF content. The G_{γ} : A_{γ} -globin mRNA is induced 0.30- to 8-fold *in vitro*^[2]. Hydroxyurea has been shown to block HIV-1 reverse transcription and/or replication in quiescent peripheral blood mononuclear cells and macrophages^[3].

In Vivo: Hydroxyurea therapy produces consistent reductions in WBC and ANC without improvement in anemia over 17 weeks. Hydroxyurea at 50mg/kg produces a reduced white blood cell count, absolute neutrophil count and no improvement in anemia compared to vehicle treated sickle cell mice^[4].



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