

# Cytidine

**Catalog No: tcsc1989**



## Available Sizes

**Size:** 1g

**Size:** 5g



## Specifications

**CAS No:**

65-46-3

**Formula:**

$C_9H_{13}N_3O_5$

**Pathway:**

Cell Cycle/DNA Damage;Metabolic Enzyme/Protease

**Target:**

Nucleoside Antimetabolite/Analog;Endogenous Metabolite

**Purity / Grade:**

>98%

**Solubility:**

10 mM in DMSO

**Alternative Names:**

Cytosine β-D-riboside;Cytosine-1-β-D-ribofuranoside

**Observed Molecular Weight:**

243.22

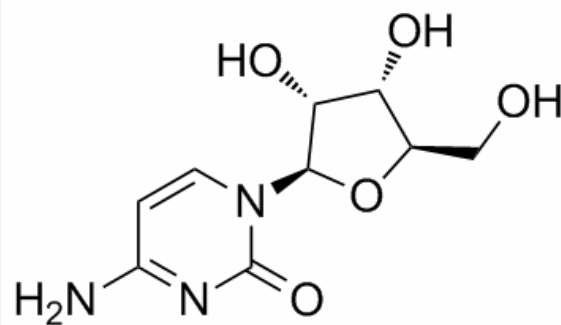
## Product Description

Cytidine is a nucleoside molecule that is formed when cytosine is attached to a ribose ring, cytidine is a component of RNA.

Target: Nucleoside antimetabolite/analog

Cytidine is a nucleoside molecule that is formed when cytosine is attached to a ribose ring (also known as a ribofuranose) via a  $\beta$ -N1-glycosidic bond. Cytidine is a component of RNA. If cytosine is attached to a deoxyribose ring, it is known as a deoxycytidine. Dietary sources of cytidine include foods with high RNA (ribonucleic acid) content, such as organ meats, Brewer's yeast, as well as pyrimidine-rich foods such as beer. During digestion, RNA-rich foods are broken-down into ribosyl pyrimidines (cytidine and uridine), which are absorbed intact. In humans, dietary cytidine is converted into uridine, which is probably the compound behind cytidine's metabolic effects.

There are a variety of cytidine analogs with potentially useful pharmacology. For example, KP-1461 is an anti-HIV agent that works as a viral mutagen, and zebularine exists in *E. coli* and is being examined for chemotherapy. Low doses of azacitidine and its analog decitabine have shown results against cancer through epigenetic demethylation.



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