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| Store at -20C | 5-Azacytidine | |  Cell Signaling TECHNOLOGY® |
| | 50 mg | | |
| | Orders: | 877-616-CELL (2355) orders@cellsignal.com | |
| | Support: | 877-678-TECH (8324) | |
| | Web: | info@cellsignal.com cellsignal.com | |
| | 3 Trask Lane Danvers Massachusetts 01923 USA | | |
| #50646 | | | |

For Research Use Only. Not for Use in Diagnostic Procedures.

Background

5-Azacytidine is a nucleoside analogue of cytidine and a DNA methyltransferase inhibitor. 5-Azacytidine is incorporated into DNA to covalently trap DNA methyltransferases, which contributes to reversing DNA methylation (1). It also functions in reducing DNA hypermethylation in certain diseases, including myelodysplastic syndrome (MDS) (2).

Molecular Formula

C₈H₁₂N₄O₅

Molecular Weight

244.2 g/mol

Purity

>98%

CAS

320-67-2

Solubility

Soluble in DMSO at 25 mg/mL or water at 12 mg/mL.

Storage

Store lyophilized at -20°C, desiccated. In lyophilized form, the chemical is stable for 24 months. Once in solution, store at -20°C and use within 1 month to prevent loss of potency. *Aliquot to avoid multiple freeze/thaw cycles.*

Directions for Use

5-Azacytidine is supplied as a lyophilized powder. For a 15 mM stock, reconstitute 5 mg of powder in 1.37 mL of DMSO. Working concentrations and length of treatment can vary depending on the desired effect.

Wear personal protective equipment. Do not empty product into drains. Do not handle until all safety precautions have been read and understood.

Safety Information: 5-Azacytidine has been classified by the International Agency for Research on Cancer (IARC) as a probable human carcinogen (Group 2A). It is suspected of causing genetic defects. It may cause adverse reproductive effects - such as birth defect, miscarriages, or infertility. Avoid contact during pregnancy and while nursing. If exposed or concerned, get medical advice. See Safety Data Sheet (SDS).

Background References

1. Brueckner, B. et al. (2005) *Cancer Res* 65, 6305-11.
2. Silverman, L.R. et al. (2002) *J Clin Oncol* 20, 2429-40.

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