

For Research Use Only. Not For Use In Diagnostic Procedures

Version 2.0

阿糖胞苷

Cytosine β -D-arabinofuranoside

Do not eat Store at 2-8° C & in the dark.

Cat.No. MG00998 Size : 1g $\geq 90\%$ (HPLC)

CAS : 147-94-4

Molecular weight : 243.22

Molecular formula : $C_9H_{13}N_3O_5$

Synonyms :

AraC ; Arabinosylcytosine ; Cytarabine ;

1- β -D-Arabinofuranosylcytosine ; Cytosine ArabinosideTechnical literature is available at: www.mesgenbio.com.E-mail MesGen Technical Services if you have questions on use of this system: tech@mesgenbio.com

Description

Cytarabine (AraC) is an antimetabolic agent and DNA synthesis inhibitor. Cytarabine (AraC) is phosphorylated into a triphosphate form (Ara-CTP) involving deoxycytidine kinase (dCK), which competes with dCTP for incorporation into DNA, and then blocks DNA synthesis by inhibiting the function of DNA and RNA polymerases. Cytarabine displays a higher growth inhibitory activity towards wild-type CCRF-CEM cells compared to other acute myelogenous leukemia (AML) cells with IC₅₀ of 16nM. Cytarabine apparently induces apoptosis of rat sympathetic neurons at 10 μ M, of which 100 μ M shows the highest toxicity and kills over 80% of the neurons by 84 hours, involving the release of mitochondrial cytochrome-c and the activation of caspase-3, and the toxicity can be attenuated by p53 knockdown and delayed by bax deletion. Cytarabine (250mg/kg) also causes placental growth retardation and increases placental trophoblastic cells apoptosis in the placental labyrinth zone of the pregnant Slc:Wistar rats. Cytarabine is highly effective against acute

leukaemias, which causes the characteristic G1/S blockage and synchronization, and increases the survival time for leukaemic Brown Norway rats in a weak dose-related fashion indicating that the use of higher dosages of Cytarabine does not contribute to its antileukaemic effectiveness in man.

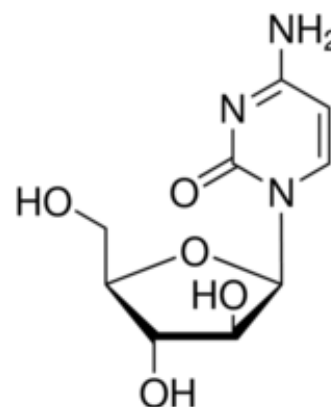
Solubility

Soluble in water (50 mg/ml) ;

DMSO (<17.3 mg/ml)

Storage condition

AraC is sensitive to light. It is recommended to store this product at 2-8 °C and in dark. If stored as recommended, it will have a shelf-life of up to 4 years. Solutions stored at -20 °C and protected from light are stable for up to one year. Solutions stored at room temperature in physiological buffer are stable for 24 hours.



Structural formula

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