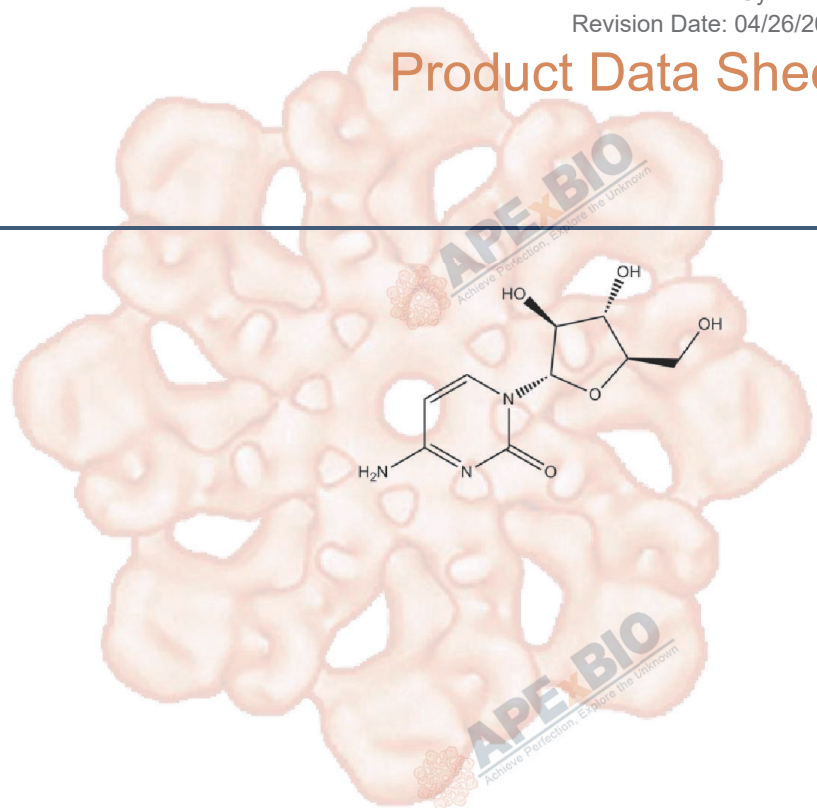


Product Data Sheet

Cytarabine

Cat. No.:	A8405
CAS No.:	147-94-4
Formula:	C ₉ H ₁₃ N ₃ O ₅
M.Wt:	243.2
Synonyms:	
Target:	DNA Damage/DNA Repair
Pathway:	DNA Synthesis
Storage:	Store at -20°C



Solvent & Solubility

insoluble in EtOH; ≥28.6 mg/mL in H₂O; ≥11.73 mg/mL in DMSO

In Vitro	Preparing Stock Solutions	Mass				
		Solvent	Concentration	1mg	5mg	10mg
				1 mM	5 mM	10 mM
			4.1118 mL	20.5592 mL	41.1184 mL	
			0.8224 mL	4.1118 mL	8.2237 mL	
			0.4112 mL	2.0559 mL	4.1118 mL	

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary	cytotoxic agent, blocks DNA synthesis	
IC ₅₀ & Target		
In Vitro	Cell Viability Assay	
	Cell Line:	rat sympathetic neurons
	Preparation method:	Limited solubility in DMSO. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
	Reacting conditions:	10 μM

	Applications:	Cytarabine apparently induced apoptosis of rat sympathetic neurons at 10 μ M, of which 100 μ M showed the highest toxicity and killed over 80% of the neurons by 84 hours, involving the release of mitochondrial cytochrome-c and the activation of caspase-3.
In Vivo	Animal experiment	
	Animal models:	Pregnant Slc:Wistar rats
	Dosage form:	Intraperitoneal injection, 250 mg/kg
	Applications:	Cytarabine (250 mg/kg) caused placental growth retardation and increased placental trophoblastic cells apoptosis in the placental labyrinth zone of the pregnant Slc:Wistar rats, which increases from 3 hour after the treatment and peaks at 6 hour before returning to control levels at 48 hour, with remarkably enhanced p53 protein, p53 transcriptional target genes such as p21, cyclinG1 and fas and caspase-3 activity.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

- [1]. Besirli C G, Deckwerth T L, Crowder R J, et al. Cytosine arabinoside rapidly activates Bax-dependent apoptosis and a delayed Bax-independent death pathway in sympathetic neurons[J]. Cell death and differentiation, 2003, 10(9): 1045.
- [2]. Yamauchi H, Katayama K, Ueno M, et al. Involvement of p53 in 1- β -D-arabinofuranosylcytosine-induced trophoblastic cell apoptosis and impaired proliferation in rat placenta[J]. Biology of reproduction, 2004, 70(6): 1762-1767.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.



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