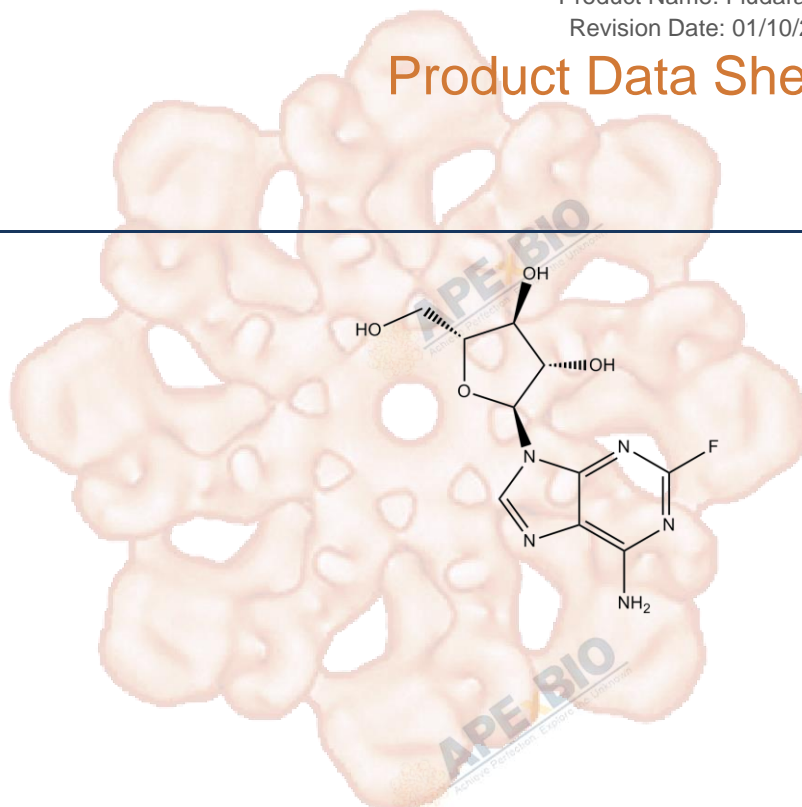


Product Data Sheet

Fludarabine

Cat. No.:	A5424
CAS No.:	21679-14-1
Formula:	C ₁₀ H ₁₂ FN ₅ O ₄
M.Wt:	285.23
Synonyms:	
Target:	DNA Damage/DNA Repair
Pathway:	DNA Synthesis
Storage:	Store at -20°C



Solvent & Solubility

insoluble in H₂O; insoluble in EtOH; ≥9.25 mg/mL in DMSO

In Vitro

Preparing Stock Solutions	Mass			
	Solvent Concentration	1mg	5mg	10mg
	1 mM	3.5059 mL	17.5297 mL	35.0594 mL
	5 mM	0.7012 mL	3.5059 mL	7.0119 mL
	10 mM	0.3506 mL	1.7530 mL	3.5059 mL

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

Biological Activity

Shortsummary

DNA synthesis inhibitor

IC₅₀ & Target

In Vitro

Cell Viability Assay

Cell Line: RPMI 8226 cells

Preparation method: The solubility of this compound in DMSO is > 9.3 mg/mL. 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: 1, 2 or 4 µg/mL; 6, 12 or 24 hrs

	Applications:	Fludarabine potently inhibited the proliferation of RPMI 8226 cells in dose- and time-dependent manners, with an IC50 value of 1.54 µg/mL. Fludarabine arrested RPMI 8226 cells in the G1 phase of cell cycle and triggered apoptosis. The immunoblotting results showed that Fludarabine time-dependently induced cleavage of caspase-8, -9, -3 and -7, followed by PARP cleavage. In addition, Fludarabine time-dependently up-regulated Bax expression, without affecting Bak expression.
In Vivo	Animal experiment	
	Animal models:	SCID mice bearing RPMI 8226 cells
	Dosage form:	40 mg/kg; i.p.
	Applications:	Tumors of mice treated with PBS grew rapidly, to approximately 10 folds of their initial volume in the 25th day, whereas, tumors in the Fludarabine treatment group increased less than 5 folds. In SCID mice bearing RPMI 8226 cells, treatment with 40 mg/kg Fludarabine for 10 days resulted in a significant increase in the number of apoptotic cells.
	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]. Meng H, Yang C, Ni W, et al. Antitumor activity of fludarabine against human multiple myeloma in vitro and in vivo. Eur J Haematol, 2007, 79(6): 486-493.

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. Short-term 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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