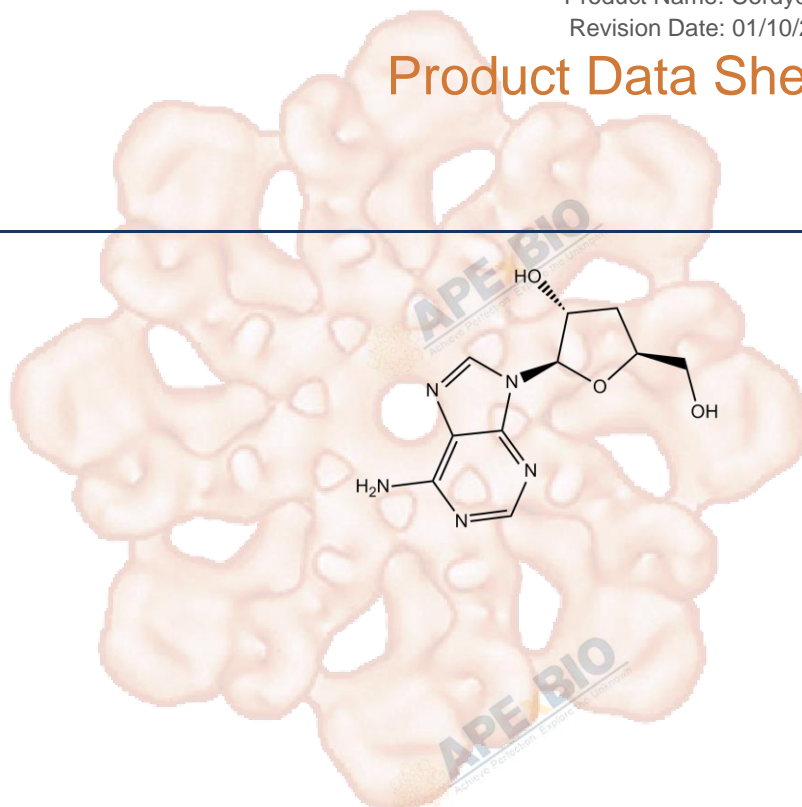


Product Data Sheet

Cordycepin

Cat. No.:	N2808
CAS No.:	73-03-0
Formula:	C ₁₀ H ₁₃ N ₅ O ₃
M.Wt:	251.24
Synonyms:	
Target:	Natural Products
Pathway:	
Storage:	Store at -20°C



Solvent & Solubility

insoluble in EtOH; insoluble in H₂O; ≥ 10.3 mg/mL in DMSO

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	Concentration			
	1 mM	3.9803 mL	19.9013 mL	39.8026 mL
	5 mM	0.7961 mL	3.9803 mL	7.9605 mL
	10 mM	0.3980 mL	1.9901 mL	3.9803 mL

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

Biological Activity

Shortsummary

IC₅₀ & Target

In Vitro

Cell Viability Assay

Cell Line:	HeLa cells
Preparation method:	The solubility of this compound in DMSO is >10.3 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:	25 µg/ml, 30 min

	Applications:	Cordycepin (25 µg/ml) suppressed the labeling of messenger RNA in HeLa cells. Cordycepin inhibited NO production in a dose-dependent manner up to 30 µg/ml. In RAW 264.7 cells, treatment with cordycepin decreased LPS-induced synthesis of iNOS protein in a dose-dependent manner. Cordycepin significantly decreased the mRNA levels of TNF-α induced by LPS in a dose-dependent manner. Cordycepin (20 µg/ml) inhibited LPS-mediated IκBα phosphorylation in a dose-dependent manner in LPS-induced macrophage cell. Cordycepin decreased the phosphorylation level of p38 and Akt in LPS-stimulated cells in a concentration-dependent manner.
In Vivo	Animal experiment	
	Animal models:	Mice bearing B16 melanoma (B16-BL6) cells,
	Dosage form:	Oral administration, 15 mg/kg per day for 2 weeks
	Applications:	Oral administration of cordycepin (15 mg/kg per day) for 2 weeks significantly reduced the wet weight of the primary tumour lump, without any loss of bodyweight or systemic toxicity. Cordycepin (15 mg/kg per day) inhibited the tumour enlargement in the right thigh inoculated with B16-BL6 cells premixed with extracellular matrix. In hematogenic metastatic mouse model bearing B16-BL6 melanoma cells, 3-hour exposure to various concentrations of cordycepin (0.3, 1 and 3 µg/ml) dose-dependently reduced the number of nodules formed in lung at 15 days after the tumor injection. Cordycepin did not influence the growth curve of B16-BL6 cells at concentrations up to 3 µg/ml.
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]. Penman S, Rosbash M, Penman M. Messenger and heterogeneous nuclear RNA in HeLa cells: differential inhibition by cordycepin[J]. Proceedings of the National Academy of Sciences, 1970, 67(4): 1878-1885.
- [2]. Kim H G, Shrestha B, Lim S Y, et al. Cordycepin inhibits lipopolysaccharide-induced inflammation by the suppression of NF-κB through Akt and p38 inhibition in RAW 264.7 macrophage cells[J]. European journal of pharmacology, 2006, 545(2): 192-199.
- [3]. Yoshikawa N, Nakamura K, Yamaguchi Y, et al. Antitumour activity of cordycepin in mice[J]. Clinical and Experimental Pharmacology and Physiology, 2004, 31(s2).
- [4]. Nakamura K, KONOHA K, YOSHIKAWA N, et al. Effect of cordycepin (3'-deoxyadenosine) on hematogenic lung metastatic model

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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