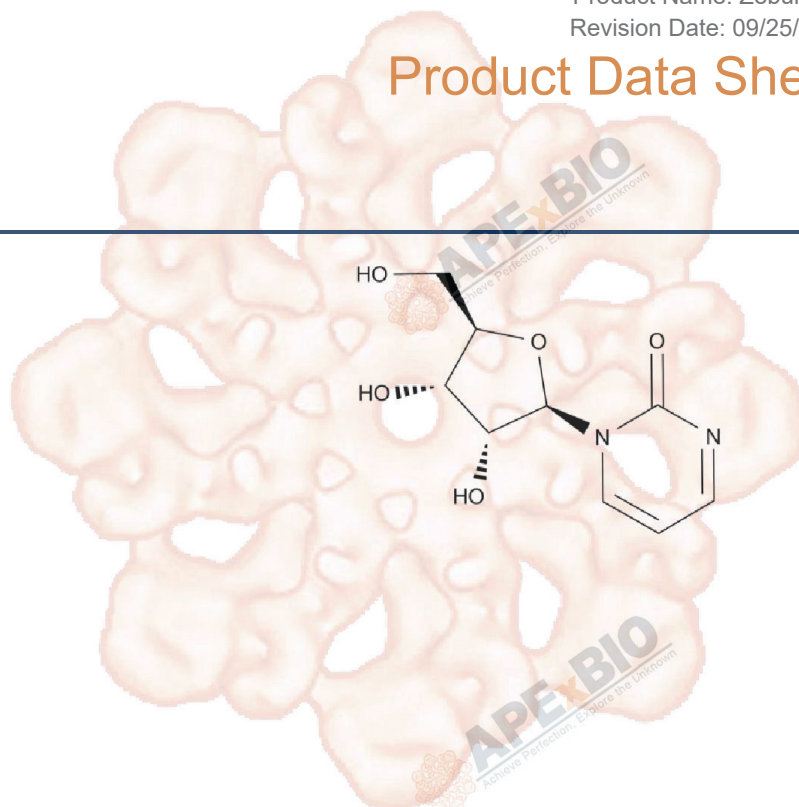


Product Data Sheet

Zebularine

Cat. No.:	A1915
CAS No.:	3690-10-6
Formula:	C ₉ H ₁₂ N ₂ O ₅
M.Wt:	228.2
Synonyms:	NSC 309132
Target:	Chromatin/Epigenetics
Pathway:	DNA Methyltransferase
Storage:	Store at -20°C



Solvent & Solubility

insoluble in EtOH; ≥ 50.7 mg/mL in H₂O; ≥ 8.3 mg/mL in DMSO

In Vitro	Preparing Stock Solutions	Mass			
		Solvent	1mg	5mg	10mg
		Concentration			
		1 mM	4.3821 mL	21.9106 mL	43.8212 mL
		5 mM	0.8764 mL	4.3821 mL	8.7642 mL
		10 mM	0.4382 mL	2.1911 mL	4.3821 mL

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

Biological Activity

Shortsummary	DNA methylation inhibitor	
IC ₅₀ & Target	(DNA Methyltransferases), 2 μ M (cytidine deaminase)	
In Vitro	Cell Viability Assay	
	Cell Line:	10T1/2 cells
	Preparation method:	The solubility of this compound in DMSO is > 10 mM. 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:	30 μ M; 24 hrs

	Applications:	In 10T1/2 cells, Zebularine induced muscle cell formation. However, the 10T1/2 cells treated with Zebularine showed less muscle cell formation than those treated with either 5-Aza-CdR or 5-Aza-CR.
In Vivo	Animal experiment	
	Animal models:	BALB/c nu/nu mice bearing EJ6 bladder cell xenografts
	Dosage form:	500 or 1000 mg/kg; i.p. or p.o.
	Applications:	In BALB/c nu/nu mice bearing EJ6 bladder cell xenografts, Zebularine (1000 mg/kg) significantly reduced tumor volumes when administered by intraperitoneal injection or by oral gavage. Moreover, Zebularine only showed slight cytotoxicity to tumor-bearing mice.
	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

1. Griffin PT, Niederhuth CE, Schmitz RJ. "A Comparative Analysis of 5-Azacytidine- and Zebularine-Induced DNA Demethylation." G3 (Bethesda). 2016 Sep 8;6(9):2773-80.PMID:27402357

See more customer validations on www.apexbt.com.

References

[1]. Cheng JC, Matsen CB, Gonzales FA, Ye W, Greer S, Marquez VE, Jones PA, Selker EU. Inhibition of DNA methylation and reactivation of silenced genes by zebularine. J Natl Cancer Inst. 2003 Mar 5;95(5):399-409.

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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