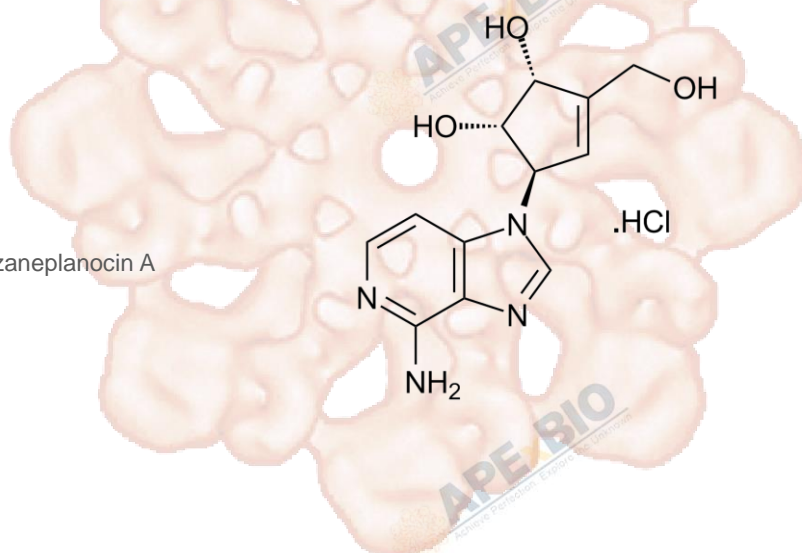


## Product Data Sheet

### 3-Deazaneplanocin A (DZNep) hydrochloride

<b>Cat. No.:</b>	A8182
<b>CAS No.:</b>	120964-45-6
<b>Formula:</b>	C <sub>12</sub> H <sub>14</sub> N <sub>4</sub> O <sub>3</sub> ·HCl
<b>M.Wt:</b>	298.73
<b>Synonyms:</b>	NSC 617989 hydrochloride, DZNep, 3-Deazaneplanocin A
<b>Target:</b>	Stem Cell
<b>Pathway:</b>	EZH2
<b>Storage:</b>	Store at -20°C



### Solvent & Solubility

insoluble in EtOH;  $\geq 14.94$  mg/mL in DMSO;  $\geq 18.32$  mg/mL in H<sub>2</sub>O with ultrasonic

In Vitro

Preparing Stock Solutions	Solvent		Mass		
	Concentration		1mg	5mg	10mg
	<b>1 mM</b>		3.3475 mL	16.7375 mL	33.4750 mL
	<b>5 mM</b>		0.6695 mL	3.3475 mL	6.6950 mL
	<b>10 mM</b>		0.3348 mL	1.6738 mL	3.3475 mL

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

### Biological Activity

Shortsummary

SAHH and EZH2 inhibitor

IC<sub>50</sub> & Target

#### Cell Viability Assay

In Vitro

Cell Line:	Human acute myeloid leukemia (AML) cell
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:	100-750 nM; 24-72h
	Applications:	DZNep induced apoptosis in cultured and primary AML cells. DZNep exhausted EZH2 levels, and inhibits trimethylation of lysine 27 on histone H3 in the AML HL-60 and OCI-AML3 cells. DZNep induced the levels of p16, p21, p27, and FBXO32 after cyclin E and HOXA9 levels run out.
In Vivo	<b>Animal experiment</b>	
	Animal models:	Sprague-Dawley rats (120&ndash;140 g)
	Dosage form:	5&mu;M DZNep for 24 h pre-treatment before experiment, orally taken with diets
	Applications:	DZNep significantly reduced EZH2 expression and activity, and it increased lipid accumulation, inflammatory molecules and microRNAs in non-alcoholic fatty liver disease (NAFLD) mouse model.
	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. Hu W, Jia X, et al. "Chaetospirolactone reverses the apoptotic resistance towards TRAIL in pancreatic cancer." *Biochem Biophys Res Commun.* 2017 Oct 28. pii: S0006-291X(17)32129-0. PMID:29107694

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## References

1. Fiskus W1, Wang Y, Sreekumar A et al. Combined epigenetic therapy with the histone methyltransferase EZH2 inhibitor 3-deazaneplanocin A and the histone deacetylase inhibitor panobinostat against human AML cells. *Blood.* 2009 Sep 24;114(13):2733-43.
2. Vella S, Gnani D, Crudele A et al. EZH2 down-regulation exacerbates lipid accumulation and inflammation in vitro and in vivo NAFLD. *Int J Mol Sci.* 2013 Dec 12;14(12):24154-68.

## 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.*



**APExBIO Technology**

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