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DATASHEET

3-Deazaneplanocin A hydrochloride

Product overview

Name	3-Deazaneplanocin A hydrochloride
Cat No	HB1416
Alternative names	DZNep
Biological action	Inhibitor
Purity	>98%
Description	Histone methyltransferase inhibitor. Enhances Oct4 expression in chemically-induced pluripotent stem cells.

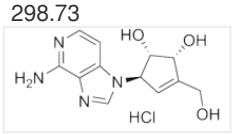
Biological Data

Biological description	Histone methyltransferase inhibitor. Inhibits S-adenosylhomocysteine hydrolase (SAH) and EZH2 protein expression. Also enhances Oct4 expression in chemically-induced pluripotent stem cells. Shows anti-cancer and antiviral actions.

Solubility & Handling

Storage instructions	-20°C
Solubility overview	Soluble in water (10mM)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Chemical name	(1*S*,2*R*,5*R*)-5-(4-Amino-1*H*-imidazo[4, 5-*c*]pyridin-1-yl)-3-(hydroxymethyl)-3-cyclopentene -1,2-diol hydrochloride
Molecular Weight	298.73
Chemical structure	
Molecular Formula	$C_{12}H_{14}N_4O_3.HCl$
CAS Number	120964-45-6
PubChem identifier	14563109
SMILES	OCC([C@@H](O)[C@H]3O)=C[C@H]3N2C=NC1=C(N)N=CC=C12.Cl
InChiKey	UNSKMHKAFPRFTI-FDKLLANESA-N

References

Synthesis of 3-deazaneplanocin A, a powerful inhibitor of S-adenosylhomocysteine hydrolase with potent and selective in vitro and in vivo antiviral activities.

Tseng CK *et al* (1989) J Med Chem 32(7)
PubMedID 2544721

3-Deazaneplanocin A (DZNep), an inhibitor of the histone methyltransferase EZH2, induces apoptosis and reduces cell

migration in chondrosarcoma cells.

Girard N *et al* (2014) PLoS One 9(5)
PubMedID 24852755

Inhibition of histone methyltransferase EZH2 depletes leukemia stem cell of mixed lineage leukemia fusion leukemia through upregulation of p16.

Ueda K *et al* (2014) Cancer Sci 105(5)
PubMedID 24612037