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DATASHEET

Tubacin

Product overview

Name	Tubacin
Cat No	HB1403
Alternative names	Tubulin acetylation inducer
Biological action	Inhibitor
Purity	>98%
Description	Selective HDAC6 inhibitor

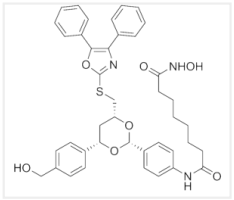
Biological Data

Biological description	Selective histone deacetylase 6 (HDAC6) inhibitor. Selective for HDAC6 over HDAC3, 8, 1, 5, 10, 11, 9, 2, 7 and 4 (IC_{50} values are 4 nM and 1.27, 1.27, 1.4, 3.35, 3.71, 3.79, 4.31, 6.27, 9.7 and 17.3 µM respectively). Induces tubulin acetylation. Shows anti-cancer, anti-proliferative and apoptotic actions.

Solubility & Handling

Storage instructions	-20°C
Solubility overview	Soluble in DMSO (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	*N*-[4-[(2*R*,4*R*,6*S*)-4-[[(4,5-Diphenyl- 2-oxazolyl)thio]methyl]-6-[4-(hydroxymethyl)phenyl]-1,3-dioxan-2-yl]phenyl]-*N'*-hydroxyoctanediamide
Molecular Weight	721.86
Chemical structure	
Molecular Formula	$C_{41}H_{43}N_3O_7S$
CAS Number	1350555-93-9
PubChem identifier	6675804
SMILES	OCC(C=C4)=CC=[C@@]4[C@@H]1C[C@H](CSC2=NC(C6=CC=CC=C6)=C(C5=CC=CC=C5)O2)O[C@H]([C@]3=CC=C(NC(CCCCCCC(NO)=O)=O)C=C3)O1
InChiKey	BHUZLJOUHMBZQY-YXQOSMAKSA-N

References

Rational design and simple chemistry yield a superior, neuroprotective HDAC6 inhibitor, tubastatin A.

Butler KV *et al* (2010) J Am Chem Soc 132(31)

PubMedID 20614936

Domain-selective small-molecule inhibitor of histone deacetylase 6 (HDAC6)-mediated tubulin deacetylation.

Haggarty SJ *et al* (2003) Proc Natl Acad Sci U S A 100(8)
PubMedID 12677000

Tubacin suppresses proliferation and induces apoptosis of acute lymphoblastic leukemia cells.

Aldana-Masangkay GI *et al* (2011) Leuk Lymphoma 52(8)
PubMedID 21699378

Tubacin kills Epstein-Barr virus (EBV)-Burkitt lymphoma cells by inducing reactive oxygen species and EBV lymphoblastoid cells by inducing apoptosis.

Kawada J *et al* (2009) J Biol Chem 284(25)
PubMedID 19386607