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DATASHEET

Cyclopiazonic acid

Product overview

Name	Cyclopiazonic acid
Cat No	HB1117
Alternative names	α-Cyclopiazonic acid, CPA
Biological action	Inhibitor
Purity	>98%
Description	Potent SERCA1a inhibitor

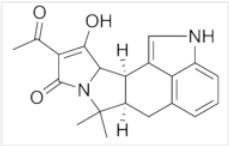
Biological Data

Biological description	Potent sarcoplasmic reticulum Ca^{2+} -ATPase 1a (SERCA1a) inhibitor. Also inhibits cell proliferation but is 40 times less potent than ochratoxin A (approx IC_{50} = 52 µM).

Solubility & Handling

Storage instructions	-20°C
Solubility overview	Soluble in ethanol (5mM) or DMSO (100mM)
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	(6a*R*,11a*S*,11b*R*)-*rel*-10-Acetyl-2,6,6 a,7,11a,11b-hexahydro-7,7-dimethyl-9*H*-pyrrolo[1',2':2,3]isoindolo[4,5,6-*cd*]indol-9-one
Molecular Weight	336.39
Chemical structure	
Molecular Formula	$C_{20}H_{20}N_2O_3$
CAS Number	18172-33-3
PubChem identifier	54682463
SMILES	CC(=O)C1=C([C@@H]2[C@@H]3[C@@H](CC4=C5C3=CNC5=CC=C4)C(N2C1=O)(C)C)O
InChi	InChI=1S/C20H20N2O3/c1-9(23)14-18(24)17-16-11-8-21-13-6-4-5-10(15(11)13)7-12(16)20(2,3)22(17)19(14)25/h4-6,8,12,16-17,21,24H,7H2,1-3H3/t12-,16+,17+/m1/s1
InChiKey	SZINUGQCTHLQAZ-DQYPLSBCSA-N
MDL number	MFCD00167445

References

Probing determinants of cyclopiazonic acid sensitivity of bacterial Ca2+-ATPases.

Kotšubei A *et al* (2013) FEBS J 280(21)

PubMedID 23621633

The effects of the Penicillium mycotoxins citrinin, cyclopiazonic acid, ochratoxin A, patulin, penicillic acid, and roquefortine C on in vitro proliferation of porcine lymphocytes.

Keblys M *et al* (2004) Mycopathologia 158(3)
PubMedID 15702270