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DATASHEET

Ascomycin

Product overview

Name	Ascomycin
Cat No	HB0123
Alternative names	FK 520, FR 900520
Biological action	Inhibitor
Purity	>98%
Description	Calcineurin phosphatase inhibitor

Images



Biological Data

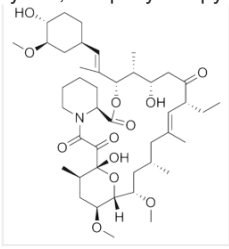
Biological description	Calcineurin phosphatase inhibitor that binds to FK 506-binding protein 12 (FKBP12) ($IC_{50} = 49$ nM). Also suppresses T-cells ($IC_{50} = 3.9$ nM). Displays neurogenerative, neuroprotective and anticonvulsant properties.
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Solubility & Handling

Storage instructions	-20 °C
Solubility overview	Soluble in DMSO (50mM) or ethanol (50mM)
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	(3 <i>S</i> ,4 <i>R</i> ,5 <i>S</i> ,8 <i>R</i> ,9 <i>E</i> ,12 <i>S</i> ,14 <i>S</i> ,15 <i>R</i> ,16 <i>S</i> ,18 <i>R</i> ,19 <i>R</i> ,26 <i>aS</i>)-8-Ethyl-5,6,8,11,12,13,14,15,16,17,18,19,24,25,26,26 <i>a</i> -hexadecahydro-5,19-dihydroxy-3-[(1 <i>E</i>)-2-[(1 <i>R</i> ,3 <i>R</i> ,4 <i>R</i>)-4-hydroxy-3-methoxycyclohexyl]-1-methylethenyl]-14,16-dimethoxy-4,10,12,18-tetramethyl-15,19-epoxy-3 <i>H</i> -pyrido[2,1- <i>c</i>][1,4]oxaazacyclotricosine-1,7,20,21(4 <i>H</i> ,23 <i>H</i>)tetrone
Molecular Weight	792.01
Chemical structure	

Chemical name	(3 <i>S</i> ,4 <i>R</i> ,5 <i>S</i> ,8 <i>R</i> ,9 <i>E</i> ,12 <i>S</i> ,14 <i>S</i> ,15 <i>R</i> ,16 <i>S</i> ,18 <i>R</i> ,19 <i>R</i> ,26 <i>aS</i>)-8-Ethyl-5,6,8,11,12,13,14,15,16,17,18,19,24,25,26,26 <i>a</i> -hexadecahydro-5,19-dihydroxy-3-[(1 <i>E</i>)-2-[(1 <i>R</i> ,3 <i>R</i> ,4 <i>R</i>)-4-hydroxy-3-methoxycyclohexyl]-1-methylethenyl]-14,16-dimethoxy-4,10,12,18-tetramethyl-15,19-epoxy-3 <i>H</i> -pyrido[2,1- <i>c</i>][1,4]oxaazacyclotricosine-1,7,20,21(4 <i>H</i> ,23 <i>H</i>)tetrone
	
Molecular Formula	C ₄₃ H ₆₉ NO ₁₂
CAS Number	104987-12-4
PubChem identifier	5282071
SMILES	<chem>OC[C@H]1[C@H](OC)C[C@H](/C=C(C)/[C@@H](O4)[C@H](C)[C@@H](O)CC([C@H](CC)/C=C(C)/C[C@H](C)C[C@H](OC)[C@@]2([H])O[C@](C(C(N3[C@@](C4=O)([H])CCCC3)=O)=O)(O)[C@H](C)C[C@@H]2OC=O)CC1</chem>
InChiKey	ZDQSOHOQTUFQEM-NURRSENYS A-N

References

Genetically engineered analogs of ascomycin for nerve regeneration.

Revill WP *et al* (2002) J Pharmacol Exp Ther 302(3)

PubMedID [12183690](#)

Ascomycin and FK506: pharmacology and therapeutic potential as anticonvulsants and neuroprotectants.

Sierra-Paredes G *et al* (2008) CNS Neurosci Ther 14(1)

PubMedID [18482098](#)

Anticonvulsant effect of the calcineurin inhibitor ascomycin on seizures induced by picrotoxin microperfusion in the rat hippocampus.

Vázquez-López A *et al* (2006) Pharmacol Biochem Behav 84(3)

PubMedID [16872668](#)