

Hello Bio, Inc.
304 Wall St., Princeton, NJ 08540 USA

T. 609-683-7500
F. 609-228-4994

customercare-usa@hellobio.com



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

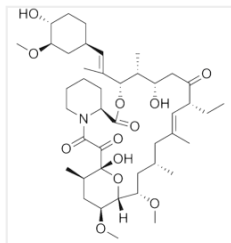
Biological description	Calcineurin phosphatase inhibitor that binds to FK 506-binding protein 12 (FKBP12) ($IC_{50} = 49$ nM). Also suppresses T-cells ($IC_{50} = 3.9$ nM). Displays neurogenerative, neuroprotective and anticonvulsant properties.
------------------------	--

Solubility & Handling

Solubility overview	Soluble in DMSO (50mM) or ethanol (50mM)
Storage instructions	-20 °C
Storage of solutions	Prepare and use solutions on the same day if possible. Store solutions at -20 °C for up to one month if storage is required. Equilibrate to RT and ensure the solution is precipitate free before use.
Shipping Conditions	Stable for ambient temperature shipping. Follow storage instructions on receipt.
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-5,6,8,11,12,13,14,15,16,17,18,19,24,25,26,26a-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**Molecular Formula**C₄₃H₆₉NO₁₂**CAS Number**

104987-12-4

PubChem identifier

5282071

SMILESO[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**InChiKey**

ZDQSOHOQTUFQEM-NURRSENYSA-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](#)
