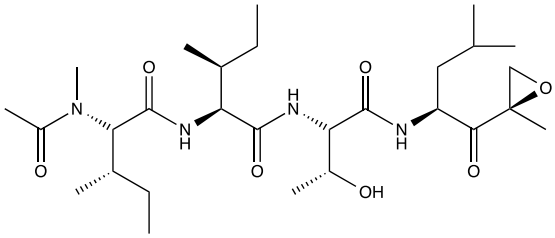
Catalog # 10-1384
Epoxomicin

CAS# 134381-21-8

Lot # FBM2094



Epoxomicin is a potent, selective and cell permeable irreversible inhibitor of the 20S proteasome.[1] It does not inhibit non-proteasomal proteases such as papain, chymotrypsin, trypsin, calpain and cathepsin B at concentrations up to 50 µM.[1] Epoxomicin was isolated from Actinomycete strain Q996-17 and displayed in vivo antitumor activity against B16 melanoma cells.[2] Epoxomicin caused a progressive model of Parkinson's disease in various systems.[3,4,5] This model has been disputed.[6,7]

1) Meng *et al*. (1999), *Epoxomicin, a potent and selective proteasome inhibitor, exhibits in vivo anti-inflammatory activity;* Proc. Natl. Acad. Sci. USA, **96** 10403
2) Hanada *et al.* (1992), *Epoxomicin, a new antitumor agent of microbial origin;* J. Antibiot. (Tokyo), **45** 1746
3) McNaught *et al.* (2004), *Systemic exposure to proteasome inhibitors causes a progressive model of Parkinson's disease;* Ann. Neurol., **56** 149
4) Matsui *et al*. (2010), *Protesasome inhibition in medaka brain induces the features of Parkinson's disease;* J. Neurochem., **115** 178
5) Metcalfe *et al*. (2012), *Coordination between proteasome impairment and caspase activation leading to TAU pathology:neuroprotection by cAMP;* Cell Death Diff., **3** e326
6) Kordower *et al*. (2006), *Failure of proteasome inhibitor administration to provide a model of Parkinson's disease in rats and monkeys;* Ann. Neurol., **60** 264
7) Bove *et al.* (2006), *Proteasome inhibition and Parkinson's disease modeling;* Ann. Neurol., **60** 260

PHYSICAL DATA

Molecular Weight:	554.73
Molecular Formula:	$C_{28}H_{50}N_4O_7$
Purity:	>97% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (up to 10 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 2 months.

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