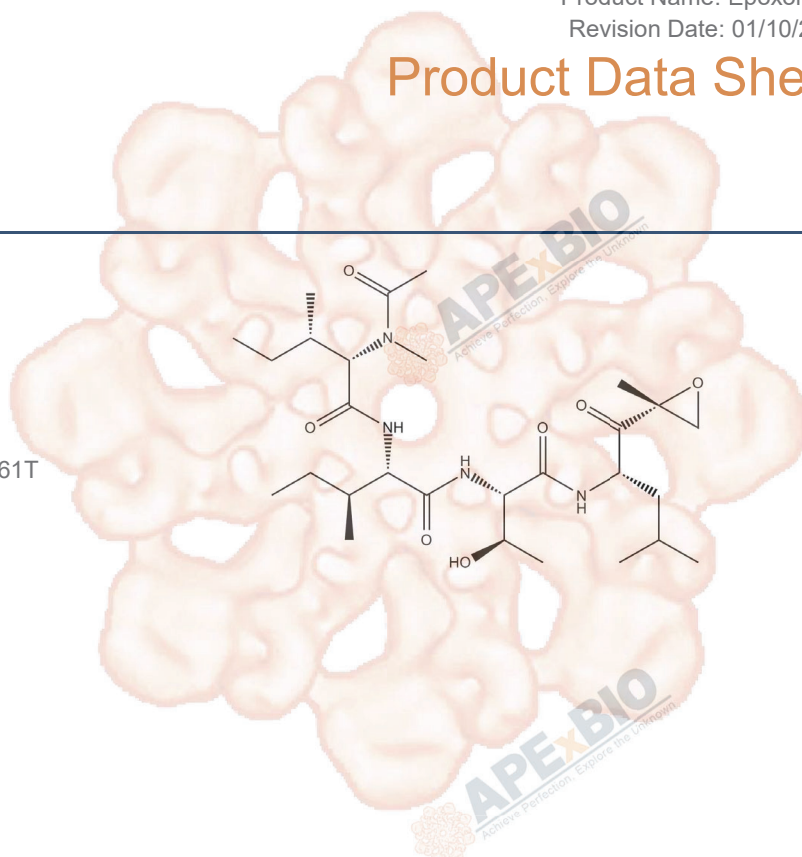


Epoxomicin

Cat. No.:	A2606
CAS No.:	134381-21-8
Formula:	C ₂₈ H ₅₀ N ₄ O ₇
M.Wt:	554.7
Synonyms:	Epoxomicin, BU4061T, BU-4061T
Target:	Ubiquitination/ Proteasome
Pathway:	Proteasome
Storage:	Store at -20°C



Solvent & Solubility

≥ 27.74mg/mL in DMSO

In Vitro

Preparing Stock Solutions	Solvent Concentration	Mass		
		1mg	5mg	10mg
	1 mM	1.8028 mL	9.0139 mL	18.0278 mL
	5 mM	0.3606 mL	1.8028 mL	3.6056 mL
	10 mM	0.1803 mL	0.9014 mL	1.8028 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary

Proteasome inhibitor

IC₅₀ & Target

4 nM (20S proteasome)

In Vitro

Cell Viability Assay

Cell Line: HEK293T cells

Preparation method: The solubility of this compound in DMSO is >10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Reacting conditions: Incubated at 0.2 μM or 2 μM epoxomicin for 1 hour

Applications: Peptides were degraded by proteasome from cytosolic, mitochondrial, and

	nuclear proteins. Epoxomicin is a proteasome inhibitor. It decreased the levels of the majority of intracellular peptides, accompanying with inhibition of the proteasome beta-2 and beta-5 subunits in HEK293T cells.	
In Vivo	Animal experiment	
	Animal models:	C57BL6
	Dosage form:	Epoxomicin (0.58 mg/kg) solubilized in 10% DMSO/PBS were injected i.p. daily for 6 days
	Applications:	Epoxomicin reduced inflammation in response to picrylchloride. Epoxomicin potently inhibited the irritant-associated inflammatory response by 95% when ear edema measurements were made 24 hr postchallenge.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

1. Azimi M, Brown NL. "Jagged1 protein processing in the developing mammalian lens." Biol Open. 2019 Mar 26;8(3). pii: bio041095.PMID:30890522
2. Felix Lambrecht. "Computational methods for the structure determination of highly dynamic molecular machines by cryo-EM." Georg-August-Universität Göttingen. 2019.
3. Zhu Y, Li M, et al. "Ilexgenin A inhibits mitochondrial fission and promote Drp1 degradation by Nrf2-induced PSMB5 in endothelial cells." Drug Dev Res. 2019 Feb 14.PMID:30762899
4. Yousefelahiyeh M, Xu J, et al. "DCAF7/WDR68 is required for normal levels of DYRK1A and DYRK1B." PLoS One. 2018 Nov 9;13(11):e0207779.PMID:30496304
5. Xiang Y, Wang M, et al. "Mechanisms controlling the multistage post-translational processing of endogenous Nrf1 α /TCF11 proteins to yield distinct isoforms within the coupled positive and negative feedback circuits." Toxicol Appl Pharmacol. 2018 Dec 1;360:212-235.PMID:30287392

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References

1. Fricker LD1, Gelman JS, Castro LM et al. Peptidomic analysis of HEK293T cells: effect of the proteasome inhibitor epoxomicin on intracellular peptides. J Proteome Res. 2012 Mar 2;11(3):1981-90.
2. Meng L1, Mohan R, Kwok BH et al. Epoxomicin, a potent and selective proteasome inhibitor, exhibits in vivo antiinflammatory activity. Proc Natl Acad Sci U S A. 1999 Aug 31;96(18):10403-8.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage

temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.



APExBIO Technology

www.apexbt.com

7505 Fannin street, Suite 410, Houston, TX 77054.

Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: info@apexbt.com

