



LKT Laboratories, Inc.

Brefeldin A

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Product Information

Product ID B6816

CAS No. 20350-15-6

Chemical Name 1,6,7,8,9,11a,12,13,14,14a-Decahydro-1,13-dihydroxy- 6-methyl-4H-cyclopent[f]oxacyclotridecin-4-one

Synonym Ascotoxin, Cyanein, Decumbin

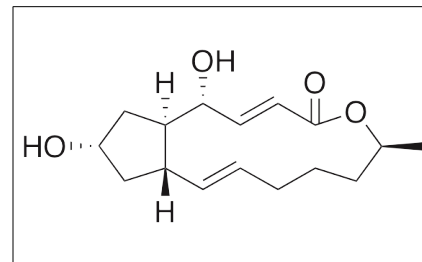
Formula C₁₆H₂₄O₄

Formula Wt. 280.36

Melting Point 204-205°C

Purity ≥97%

Solubility Soluble in methanol.



Bulk quantities available upon request

Product ID	Size
B6816	5 mg
B6816	10 mg

Store Temp -20°C

Ship Temp Ambient

Description Brefeldin A is a lactone antibiotic found in fungi such as *Eupenicillium*; it exhibits anticancer and antiviral activities. Brefeldin A inhibits activity of guanine nucleotide exchange factors, preventing association with COPI and COPI-mediated vesicle formation and suppressing protein transport from the endoplasmic reticulum to the Golgi apparatus. Brefeldin A is used in research models to study endoplasmic reticulum stress and protein transport. In vitro, this compound inhibits poliovirus replication. In prostate cancer cells, brefeldin A inhibits cell growth, induces apoptosis and G1 phase cell cycle arrest, decreases levels of p53, CDK2, CDK4, and cyclin D1, and causes cell death.

References Zhou C, Li C, Li D, et al. BIG1, a brefeldin A-inhibited guanine nucleotide-exchange protein regulates neurite development via PI3K-AKT and ERK signaling pathways. *Neuroscience*. 2013 Dec 19;254:361-8. PMID: 24090963.

Rouhana J, Padilla A, Estaran S, et al. Kinetics of interaction between ADP-ribosylation factor-1 (Arf1) and the Sec7 domain of Arno guanine nucleotide exchange factor, modulation by allosteric factors, and the uncompetitive inhibitor brefeldin A. *J Biol Chem*. 2013 Feb 15;288(7):4659-72. PMID: 23255605.

Chapman JR, Tazaki H, Mallouh C, et al. Brefeldin A-induced apoptosis in prostatic cancer DU-145 cells: a possible p53-independent death pathway. *BJU Int*. 1999 Apr;83(6):703-8. PMID: 10233583.

Cuconati A, Molla A, Wimmer E. Brefeldin A inhibits cell-free, de novo synthesis of poliovirus. *J Virol*. 1998 Aug;72(8):6456-64. PMID: 9658088.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.