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DATASHEET

Brefeldin A (BFA)

Product overview

Name Brefeldin A (BFA)

Cat No HB2949

Alternative names BFA, Synergisidin, Nectrolide, Decumbin, Cyanein

Biological action Inhibitor Purity >98%

Description Reversible protein transport inhibitor. Commonly used in cytokine staining. Enhances CRISPR-

mediated HDR.

Biological Data

Biological description

Brefeldin A is a reversible inhibitor of protein transport.

Following treatment with Brefeldin A, the Golgi complex disassembles and redistributes into the endoplasmic reticulum within minutes. Brefeldin A is a potent, rapid and reversible inhibitor of secretion.

Brefeldin A inhibits the GTPase exchange factor acting on the ARF protein. ARF activates ADP-ribosylation factors to the golgi complex.

<u>Uses</u>

Brefeldin A is widely used in studies of membrane trafficking. It increases intracellular cytokine staining signals and is commonly used for intracellular staining of cytokines for flow cytometry. It blocks transport processes during cell activation and causes an accumulation of cytokines at the golgi complex/ endoplasmic reticulum.

Brefeldin A also shows antibiotic actions and induces apoptosis and autophagy in mammalian cells. Recently, it has been shown to enhance CRISPR-mediated homology-directed repair (HDR) in hiPSCs (human induced pluripotent stem cells).

Monensin sodium salt also available

Solubility & Handling

Storage instructions Solubility overview -20°C (desiccate) Soluble in DMSO (50mM) and in ethanol (10mM)

280.36

Important Soluble in DMSC

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 1,6,7,8,9,11aβ,12,13,14,14αa-Decahydro-1β,13α-dihydroxy-6β-methyl-4H-

cyclopent(f)oxacyclotridecin-4-one

Molecular Weight

Chemical structure

но.

InChi InChi=1S/C16H24O4/c1-11-5-3-2-4-6-12-9-13(17)10-14(12)15(18)7-8-16(19)20-11/h4,6-8,11-15,17-

18H,2-3,5,9-10H2,1H3/b6-4+,8-7+/t11-,12?,13-,14+,15+/m0/s1

InChiKey KQNZDYYTLMIZCT-KFKPYADVSA-N

MDL number MFCD12913297
Appearance White to off-white solid

References

Brefeldin A: the advantage of being uncompetitive.

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Golgi tubule traffic and the effects of brefeldin A visualized in living cells.

Sciaky et al (1997) J Cell Biol 39(5)

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Detection of intracellular cytokines by flow cytometry.

Jung et al (1993) J Immunol Methods. 159(1-2) **PubMedID** 8445253

Molecular mechanism and functional role of brefeldin A-mediated ADP-ribosylation of CtBP1/BARS.

Colanzi et al (2013) Proc Natl Acad Sci U S A 110(24)

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