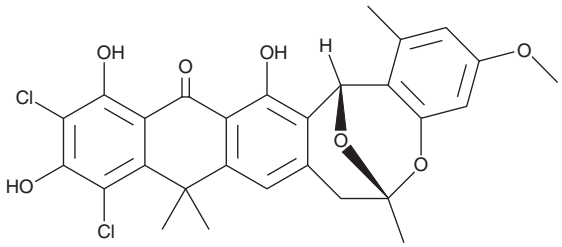
PRODUCT INFORMATION

Bischloroanthrabenzoxocinone

Item No. 19439

CAS Registry No.: 866022-28-8
Formal Name: (6R,16R)-10,12-dichloro-6,7,9,16-tetrahydro-11,13,15-trihydroxy-3-methoxy-1,6,9,9-tetramethyl-6,16-epoxy-14H-anthra[2,3-d][1]benzoxocin-14-one
Synonyms: BABX, (−)-Bischloroanthrabenzoxocinone
MF: $C_{28}H_{24}Cl_2O_7$
FW: 543.4
Purity: ≥95%
Supplied as: A residue
Storage: -20°C
Stability: ≥4 years
Item Origin: Bacterium/*Streptomyces* sp.



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Bischloroanthrabenzoxocinone (BABX) is supplied as a residue. A stock solution may be made by dissolving the BABX in the solvent of choice, which should be purged with an inert gas. BABX is soluble in organic solvents such as ethanol, methanol, DMSO, and dimethyl formamide.

Description

Bacterial type II fatty acid synthesis (FAS-II) is mediated by a series of enzymes, each of which may be targeted by potential antibiotics.[1] BABX is an inhibitor of FAS-II, blocking fatty acid synthesis in *S. aureus* and *E. coli* with IC_{50} values of 11.4 and 35.3 µg/ml, respectively.[2] It inhibits the growth of *S. aureus* and permeable *E. coli* strains with minimum inhibitory concentrations ranging from 0.2-0.4 µg/ml.[2,3] BABX also displays binding to liver X receptors (LXRs), inhibiting agonist binding in an LXRα-scintillation proximity assay (IC_{50} = 10 µM).[3]

References

1. Yao, J. and Rock, C.O. How bacterial pathogens eat host lipids: Implications for the development of fatty acid synthesis therapeutics. *J. Biol. Chem.* **290(10)**, 5940-5946 (2015).
2. Kodali, S., Galgoci, A., Young, K., *et al.* Determination of selectivity and efficacy of fatty acid synthesis inhibitors. *J. Biol. Chem.* **280(2)**, 1669-1677 (2005).
3. Herath, K.B., Jayasuriya, H., Guan, Z., *et al.* Anthrabenzoxocinones from *Streptomyces* sp. as liver X receptor ligands and antibacterial agents. *J. Nat. Prod.* **68(9)**, 1437-1440 (2005).

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