Product Data Sheet

Bongkrekic acid

Cat. No.:HY-136406CAS No.:11076-19-0Molecular Formula: $C_{28}H_{38}O_7$ Molecular Weight:486.6

Target: ATP Synthase

Pathway: Membrane Transporter/Ion Channel

Storage: Powder -20°C 3 years In solvent -80°C 6 months

-20°C 1 month

HO OH

BIOLOGICAL ACTIVITY

Description	Bongkrekic acid is a mitochondrial toxin secreted by the bacteria Pseudomonas cocovenenans ^[1] . Bongkrekic acid specific ligand for mitochondrial adenine nucleotide translocase (ANT) rather than the electron transport chain. Bongkrekic acid has to cross the mitochondrial inner membrane to produce its inhibitory effect on ADP/ATP transport ^[2] .
In Vitro	Bongkrekic acid (0-50 μ M; 48 hours) stimulated formazan formation in MDA-MB-231, MCF-7 and LTED cells with EC ₅₀ of 34.14 μ M, >50 μ M and 2.58 μ M, respectively. Bongkrekic acid (0.1-25 μ M; 48 hours) decreases the living cell numbers in LTED cells and parent MCF-7 cells in a dose-dependent manner ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Mehruba Anwar, et al. Bongkrekic Acid-a Review of a Lesser-Known Mitochondrial Toxin. J Med Toxicol. 2017 Jun;13(2):173-179.

[2]. C Dahout-Gonzalez, et al. Molecular, functional, and pathological aspects of the mitochondrial ADP/ATP carrier. Physiology (Bethesda)

[3]. Shuso Takeda, et al. Bongkrekic Acid as a Warburg Effect Modulator in Long-term Estradiol-deprived MCF-7 Breast Cancer Cells. Anticancer Res

Caution: Product has not been fully validated for medical applications. For research use only.

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Inhibitors