

Product Data Sheet

Chemical Properties

Product Name: Bax inhibitor peptide P5

Cas No.: 579492-83-4

M.Wt: 616.77



Formula: C₂₇H₄₈N₆O₈S

Chemical Name: (2S)-2-[[[(2S)-6-amino-2-[[[(2S)-4-methyl-2-[[[(2S)-4-methylsulfanyl-2-[[[(2S)-pyrrolidine-2-carbonyl]amino]butanoyl]amino]pentanoyl]amino]hexanoyl]amino]pentanedioic acid

Canonical SMILES: CC(C)CC(C(=O)NC(CCCCN)C(=O)NC(CCC(=O)O)C(=O)O)NC(=O)C(CCSC)NC(=O)C1CCCN1

Solubility: >61.7mg/mL in DMSO

Storage: Desiccate at -20°C

General tips: For obtaining a higher solubility, please warm the tube at 37° C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20° C for several months.

Shopping Condition: Evaluation sample solution : ship with blue ice
All other available size: ship with RT, or blue ice upon request

Biological Activity

Targets : Apoptosis

Pathways: Bcl-2 Family

Description:

Bax inhibitor peptide P5 (BIP P5) is a peptide inhibitor of Bax translocation to mitochondria [1]. Bax is a pro-apoptotic member of Bcl-2 family proteins and plays an important role in mitochondria-dependent apoptosis. Bax stays in the cytosol and transfers into mitochondria after apoptotic stimuli [1].

BIP P5 is a membrane-permeable peptide inhibitor of Bax translocation to mitochondria. In HeLa

cells, BIP P5 protected cells from UVC- and STS-induced apoptosis. In U87-MG glioma cells, MCF-7 breast cancer cells and LNCaP prostate cancer cells, BIP P5 also inhibited apoptosis induced by anti-cancer drugs cisplatin, etoposide and doxorubicin. While BIP P5 did not suppress UVC- or STS-induced apoptosis in Bax-deficient cells (DU145), which suggested BIP P5 only suppressed Bax-mediated apoptosis. The caspase activation and the release of cytochrome c from mitochondria triggered by apoptotic stimuli were also significantly inhibited by BIP P5. BIP P5 inhibited the interaction of Ku70 and endogenous Bax in a dose-dependent way [1].

Reference:

[1]. Sawada M, Hayes P, Matsuyama S. Cytoprotective membrane-permeable peptides designed from the Bax-binding domain of Ku70. *Nat Cell Biol*, 2003, 5(4): 352-357.

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 ApexBio 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