Product Data Sheet

Product Name: Bax inhibitor peptide P5
Cat. No.: GC16023

Chemical Properties

Cas. No.	579492-83-4		
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		
SMILES	CC(C)CC(C(=O)NC(CCCCN)C(=O)NC(CCC(=O)O)C(=O)O)NC(=O)C(CCSC)NC(=O)C1CCCN1		
Formula	$C_{27}H_{48}N_6O_8S$	M.Wt	616.77
Solubility	≥ 61.7mg/mL in DMSO, ≥ 101 mg/mL in EtOH with ultrasonic, ≥ 94.4 mg/mL in Water	Storage	Desiccate at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	Bax inhibitor peptide P5		

Background

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.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA