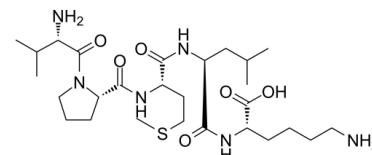


Data Sheet

Product Name:	Bax inhibitor peptide V5
Cat. No.:	CS-5509
CAS No.:	579492-81-2
Molecular Formula:	C ₂₇ H ₅₀ N ₆ O ₆ S
Molecular Weight:	586.79
Target:	Apoptosis; Bcl-2 Family
Pathway:	Apoptosis
Solubility:	DMSO : ≥ 30 mg/mL



BIOLOGICAL ACTIVITY:

Bax inhibitor peptide V5 (BIP-V5) is a **Bax**-mediated apoptosis inhibitor, used for cancer treatment. **In Vitro:** Bax inhibitor peptide V5 (BIP-V5; 0-50 μ M) reduces cell death in STF-cMyc cells but not in SW620 or NCI-H23 cells. BIPV5 does not result in any significant effect on cell cycle arrest at the G2/M phase^[1]. V5 treatment upregulates expression of anti-apoptotic proteins Bcl-2 and XIAP by more than 3- and 11-fold and downregulates expression of apoptosis-inducing proteins Bax, Bad, and nuclear factor- κ B-p65 by 10, 30, and nearly 50%, respectively^[2]. **In Vivo:** Bax inhibitor peptide V5 (BIP-V5; 100 μ M) significantly improves islet function following isolation and improves islet graft function following transplantation in mice model^[2].

PROTOCOL (Extracted from published papers and Only for reference)

Cell Assay: Bax inhibitor peptide V5 is dissolved in DMSO.^[1] Cells (2.5×10^4 cells/mL) are grown in 96-well plates in a final volume of 100 μ L/well. After 24 h, cells are incubated with small molecules or vehicle (DMSO) for 48-96 h prior to harvest. 3-(4,5-Dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide, a tetrazole (MTT) reagent (0.5 mg/mL), is added to each well during the final 2 h, and absorbance is measured. Cell growth is calculated as the ratio of absorbance obtained upon compound treatment to that obtained with vehicle (DMSO) treatment.

References:

- [1]. Jo MJ, et al. Regulation of cancer cell death by a novel compound, C604, in a c-Myc-overexpressing cellular environment. *Eur J Pharmacol.* 2015 Dec 15;769:257-65.
- [2]. Rivas-Carrillo JD, et al. Cell-permeable pentapeptide V5 inhibits apoptosis and enhances insulin secretion, allowing experimental single-donor islet transplantation in mice. *Diabetes.* 2007 May;56(5):1259-67. Epub 2007 Feb 7.

CAIndexNames:

L-Lysine, L-valyl-L-prolyl-L-methionyl-L-leucyl-

SMILES:

O=C([C@H](CCC1)N1C([C@@H](N)C(C)C=O)N[C@@H](CCSC)C(N[C@@H](CC(C)C)C(N[C@H](C(O)=O)CCCCN)=O)=O

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

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