

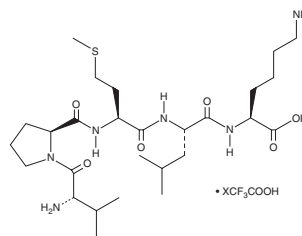
PRODUCT INFORMATION



Bax Inhibitor Peptide V5 (trifluoroacetate salt)

Item No. 30243

Formal Name: L-valyl-L-prolyl-L-methionyl-L-leucyl-L-lysine, trifluoroacetate salt
Synonyms: BIP V5, VPMLK
MF: C₂₇H₅₀N₆O₆S • XCF₃COOH
FW: 586.8
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Bax inhibitor peptide V5 (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the bax inhibitor peptide V5 (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. Bax inhibitor peptide V5 (trifluoroacetate salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of bax inhibitor peptide V5 (trifluoroacetate salt) in ethanol and DMSO is approximately 20 mg/ml and approximately 15 mg/ml in DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of bax inhibitor peptide V5 (trifluoroacetate salt) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of bax inhibitor peptide V5 (trifluoroacetate salt) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Bax inhibitor peptide V5 is an inhibitor of Bax.¹ It decreases levels of the pro-apoptotic proteins Bax, Bad, and NF-κB p65 and increases levels of the anti-apoptotic proteins X-linked inhibitor of apoptosis (XIAP) and Bcl-2 in isolated mouse pancreatic islets when used at a concentration of 100 μM.² It inhibits apoptosis induced by etoposide (Item No. 12092) in Hep3B human hepatoma cells when used at a concentration of 200 μM.¹ Bax inhibitor peptide V5 (5 mg/ml, i.c.v.) decreases infarct volume and reduces ipsilateral paw preference in the cylinder rearing test, indicating an improvement in sensorimotor function, in a neonatal mouse model of hypoxic-ischemia brain injury induced by carotid artery ligation.³ Bax inhibitor peptide V5, when used at a concentration of 100 μM in syngeneic pancreatic islet cells prior to transplantation, inhibits increases in blood glucose levels in an intraperitoneal glucose tolerance test and increases survival in a mouse model of diabetes induced by streptozotocin (STZ; Item No. 13104).²

References

1. Yoshida, T., Tomioka, I., Nagahara, T., *et al.* Bax-inhibiting peptide derived from mouse and rat Ku70. *Biochem. Biophys. Res. Commun.* **321(4)**, 961-966 (2004).
2. Rivas-Carrillo, J.D., Soto-Gutierrez, A., Navarro-Alvarez, N., *et al.* Cell-permeable pentapeptide V5 inhibits apoptosis and enhances insulin secretion, allowing experimental single-donor islet transplantation in mice. *Diabetes* **56(5)**, 1259-1267 (2007).
3. Wang, X., Han, W., Du, X., *et al.* Neuroprotective effect of Bax-inhibiting peptide on neonatal brain injury. *Stroke* **41(9)**, 2050-2055 (2010).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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