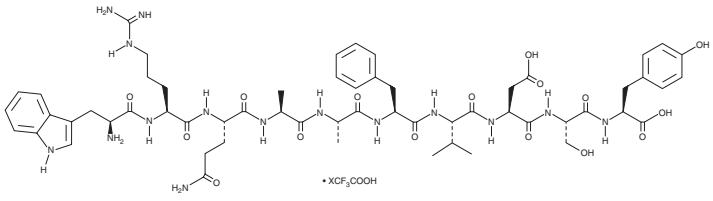
PRODUCT INFORMATION

^{10}Panx (trifluoroacetate salt)

Item No. 36867

Formal Name: L-tryptophyl-L-arginyl-L-glutaminyl-L-alanyl-L-alanyl-L-phenylalanyl-L-valyl-L-α-aspartyl-L-seryl-L-tyrosine, trifluoroacetate salt
Synonyms: ^{10}Panx1, WRQAAFVDSY
MF: $C_{58}H_{79}N_{15}O_{16} \bullet XCF_3COOH$
FW: 1,242.3
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

^{10}Panx (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the ^{10}Panx (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. ^{10}Panx (trifluoroacetate salt) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of ^{10}Panx (trifluoroacetate salt) in these solvents is approximately 2 and 5 mg/ml, respectively.

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 ^{10}Panx (trifluoroacetate salt) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of ^{10}Panx (trifluoroacetate salt) in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

^{10}Panx is a peptide mimetic of the pannexin 1 (PANX1) ectodomain and inhibitor of PANX1, an innexin family gap domain protein and component of membrane channels.[1] It inhibits purinergic $P2X_7$ receptor activation-induced dye uptake, constitutive dye uptake, and hemichannel currents, as well as ATP-induced caspase activation and IL-1β release in HEK293 cells when used at a concentration of 200 µM. ^{10}Panx inhibits pannexin channel currents and connexin 46 channel currents in *Xenopus* oocytes expressing the human channels.[2]

References

1. Pelegrin, P. and Surprenant, A. Pannexin-1 mediates large pore formation and interleukin-1β release by the ATP-gated $P2X_7$ receptor. *EMBO J.* **25(21)**, 5071-5082 (2006).
2. Wang, J., Ma, M., Locovei, S., *et al.* Modulation of membrane channel currents by gap junction protein mimetic peptides: Size matters. *Am. J. Physiol. Cell Physiol.* **293(3)**, C1112-C1119 (2007).

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