

# Recombinant Micrurus tener tener Kunitz-type neurotoxin MitTx-alpha

Catalog No: #AP73018

Orders: [order@signalwayantibody.com](mailto:order@signalwayantibody.com)Support: [tech@signalwayantibody.com](mailto:tech@signalwayantibody.com)

Package Size: #AP73018-1 20ug #AP73018-2 100ug #AP73018-3 1mg

## Description

Product Name	Recombinant Micrurus tener tener Kunitz-type neurotoxin MitTx-alpha
Brief Description	Recombinant Protein
Host Species	Yeast
Purification	Greater than 90% as determined by SDS-PAGE.
Immunogen Description	Expression Region:25-84aaSequence Info:Full Length
Accession No.	G9I929
Uniprot	G9I929
Calculated MW	9.1 kDa
Tag Info	N-terminal 6xHis-tagged
Target Sequence	QIRPAFCYEDPPFFQKCGAFVDSYYFNRSRITCVHFFYGQCDVNQNHFTTMSECNRVCHG
Formulation	Tris-based buffer50% glycerol
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.  Generally, the shelf life of liquid form is 6 months at -20°C,-80°C. The shelf life of lyophilized form is 12 months at -20°C,-80°C.Notes:Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

## Background

This heterodimeric toxin potentially activates mouse acid-sensing ion channel ASIC1,ACCN2 expressed in Xenopus oocytes. Both alternatively spliced isoforms ASIC1a and ASIC1b are activated, with a higher potency for ASIC1a (EC(50)=9.4 nM) vs ASIC1b (EC(50)=23 nM). The ASIC3,ACCN3 subtype is also sensitive to the heterodimer, but with a lower potency (EC(50)=830 nM). On ASIC2a,ACCN1, the toxin shows a very weak activation, but produces a remarkable potentiation (>100-fold) of protons when the extracellular pH drops below neutrality. The toxin interacts with the extracellular region of the channel, since responses are only observed in the outside-out configuration. In vivo, the heterodimer elicits robust pain-related behavior in mice by activation of ASIC1,ACCN2 channels on capsaicin-sensitive nerve fibers

## References

"A heteromeric Texas coral snake toxin targets acid-sensing ion channels to produce pain."Bohlen C.J., Chesler A.T., Sharif-Naeini R., Medzihradzsky K.F., Zhou S., King D., Sanchez E.E., Burlingame A.L., Basbaum A.I., Julius D.Nature 479:410-414(2011)Research Topic:Others

Note: This product is for in vitro research use only