

PRODUCT INFORMATION



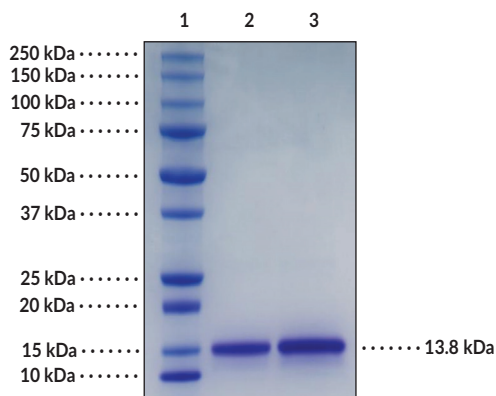
Basic PLA₂ homolog MjTX-I (*Bothrops moojeni*, recombinant) Item No. 37957

Overview and Properties

Synonyms:	Basic Phospholipase A ₂ homolog 1, Basic PLA ₂ homolog BomoTx, <i>B. moojeni</i> Myotoxin I, svPLA ₂ homolog
Source:	Recombinant Brazilian lancehead viper (<i>B. moojeni</i>) PLA ₂ expressed in <i>E. coli</i>
Amino Acids:	17-138
Uniprot No.:	P82114
Molecular Weight:	13.8 kDa
Storage:	-80°C (as supplied)
Stability:	≥1 year
Purity:	batch specific (≥85% estimated by SDS-PAGE)
Supplied in:	50 mM Tris-HCl, pH 8.0, with 100 mM sodium chloride
Endotoxin Testing:	< 1.0 EU/μg, determined by the LAL endotoxin assay
Protein	
Concentration:	batch specific mg/ml

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

Image



Lane 1: MW Markers

Lane 2: Basic PLA₂ homolog MjTX-I

Lane 3: Basic PLA₂ homolog MjTX-I

**SDS-PAGE Analysis of Basic PLA₂ homolog
MjTX-I.**

*Representative gel image shown; actual purity
may vary between each batch.*

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.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 03/27/2023

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM

PRODUCT INFORMATION



Description

Basic phospholipase A₂ (PLA₂) homolog MjTX-I is a PLA₂-like myotoxin of the Lys49-PLA₂ family that has been found in Brazilian lancehead viper (*B. moojeni*) venom.¹ Unlike other Lys49-PLA₂ proteins that form homodimers, basic PLA₂ homolog MjTX-I forms oligomeric conformations in solution that can also be induced by certain ligands such as the class 3 PLA₂-like toxin inhibitor suramin (Item No. 11126).²⁻⁴ Basic PLA₂ homolog MjTX-I is catalytically inactive and has lower myotoxic activity than other Lys49-PLA₂ proteins in mice.^{1,2} It is cytotoxic to myoblasts *in vitro* and intraperitoneally lethal to mice.⁴

References

1. Salvador, G.H.M., Dreyer, T.R., Gomes, A.A.S., *et al.* Structural and functional characterization of suramin-bound MjTX-I from *Bothrops moojeni* suggests a particular myotoxic mechanism. *Sci. Rep.* **8**(1), 10317 (2018).
2. Salvador, G.H.M., Fernandes, C.A.H., Magro, A.J., *et al.* Structural and phylogenetic studies with MjTX-I reveal a multi-oligomeric toxin – a novel feature in Lys49-PLA₂s protein class. *PLOS One* **8**(4), e60610 (2013).
3. Salvador, G.H.M., Gomes, A.A.S., Bryan-Quirós, W., *et al.* Structural basis for phospholipase A₂-like toxin inhibition by the synthetic compound Varespladib (LY315920). *Sci. Rep.* **9**(1), 17203 (2019).
4. Soares, A.M., Andrião-Escarso, S.H., Lomonte, Y.A.B., *et al.* Structural and functional characterization of myotoxin I, a Lys49 phospholipase A₂ homologue from *Bothrops moojeni* (Caissaca) snake venom. *Arch. Biochem. Biophys.* **373**(1), 7-15 (2000).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM