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- Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

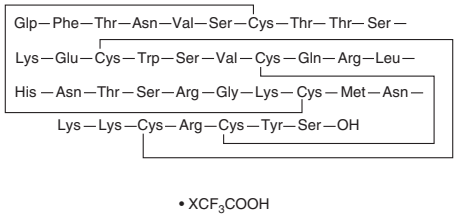
linkedin.com/company/szaboscandic

PRODUCT INFORMATION

Charybdotoxin (trifluoroacetate salt)

Item No. 24115

Synonym:	ChTX
MF:	$C_{176}H_{277}N_{57}O_{55}S_7 \bullet XCF_3COOH$
FW:	4,295.9
Purity:	≥95%
Supplied as:	A lyophilized powder
Storage:	-20°C
Stability:	≥4 years



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

Laboratory Procedures

Charybdotoxin (trifluoroacetate salt) is supplied as a lyophilized powder. A stock solution may be made by dissolving the charybdotoxin (trifluoroacetate salt) in water. The solubility of charybdotoxin (trifluoroacetate salt) in water is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Charybdotoxin is a peptide originally isolated from the scorpion *L. quinquestriatus* that acts as a potassium channel blocker.[1,2] It blocks large-conductance Ca^{2+}-activated K^+ channels (BK_{Ca}s) in GH3 rat pituitary tumor cells and primary bovine aortic smooth muscle cells (K_ds = 2.1 and ~2.1 nM, respectively).[2] Charybdotoxin selectively blocks voltage-gated potassium (K_v) channels K_v1.2 and K_v1.3 over K_v1.1, K_v1.5, and K_v3.1 (K_ds = 14, 2.6, >1,000, >100, >1,000 nM, respectively).[3] It also blocks human large-conductance pH-activated potassium channel K_{Ca}5.1 (Slo3) by 47% at a concentration of 100 nM and pH of 7.4, and human intermediate-conductance Ca^{2+}-activated K^+ channel IKCa1/K_{Ca}3.1 (K_d = 10 nM).[4,5]

References

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3. Grissmer, S., Nguyen, A.N., Aiyar, J., *et al.* Pharmacological characterization of five cloned voltage-gated K^+ channels, types K_v1.1, 1.2, 1.3, 1.5, and 3.1, stably expressed in mammalian cell lines. *Mol. Pharmacol.* **45(6)**, 1227-1234 (1994).
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5. Logsdon, N.J., Kang, J., Togo, J.A., *et al.* A novel gene, *hKCa4*, encodes the calcium-activated potassium channel in human T lymphocytes. *J. Biol. Chem.* **272(52)**, 32723-32726 (1997).

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