



alomone labs

Molecular Tools for the Neuroscience Community

DATA SHEETS

Certificate of Analysis

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PRODUCT # F-700

LOT # 02

CERTIFICATE OF ANALYSIS

FS-2

(Dendroaspis p. polylepsis)

M.W.: 7026 daltons.¹

Sequence:

RICYS HKASL PRATK TCVEN TCYKM FIRTH RQYIS ERGCG CPTAM WPYQT ECCKG DRCNK

Purity: > 98% by HPLC.

Solubility: Any aqueous buffer.

Preparation:

FS-2 is isolated from *Dendroaspis p. polylepsis* snake venom, by modification of the procedure of Schweitz¹ and purified to homogeneity.

Reconstitution:

The peptide concentration and identification were determined by amino acid analysis. Each vial contains 70 µg of unbuffered protein. Dissolving of 70 µg in 10ml of any conventional buffer gives a stock solution of 1µM.

Before dissolving the toxin, the tube should first be centrifuged, to concentrate the lyophilized toxin in the bottom of the tube. After centrifuging, the toxin must be dissolved into a stock solution using distilled water, or an appropriate buffer (see below), to a concentration of 10⁻⁵-10⁻⁶M. After preparing the stock solution, it should be divided into aliquots and can be stored this way for up to three months at -20°C.

Last Modified
June 2002



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Storage and Stability:

Lyophilized form: 2-3 weeks at room temperature.
One year at -20° C.
Liquid form: Up to two weeks at 4° C.
Three months at -20° C.

Known action:

FS2 is an L-type Ca_v channel blocker².

Bioassay:

The toxin reduced Bay K 8644-induced [Ca²⁺]_i increase, in smooth muscle cells as determined by calcium imaging with Fura-2². The IC₅₀ for this effect was 23 nM. FS2 induced relaxation in pre-constricted rat aorta, pulmonary artery and trachea³. In addition it inhibited, Achetylcholine induced contraction in guinea pig ileum.

Reference:

1. Schweitz, H. *et al.* (1990) *Toxicon* **28**, 847.
2. Yasuda, O. *et al.* (1994) *Artery* **21(5)**, 287.
3. Watanabe, T. X. *et al.* (1995) *Jpn. J. Pharmacol.* **68(3)**, 305.

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