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Molecular Tools for the Life Science Community

Certificate of Analysis

BDS-II

(Blood depressing substance II)

Cat. #: B-450

Origin: *Anemonia sulcata* (Mediterranean snakelocks sea anemone).

Source description: Natural peptide.

M.W.: 4776 daltons¹.

Purity: >95%.

Effective concentration: 100 nM - 5 μ M.

Sequence: AAPCFCPGKPDRLWILRGTCPPGGYGYTSNICYK
WPNICCYPH.

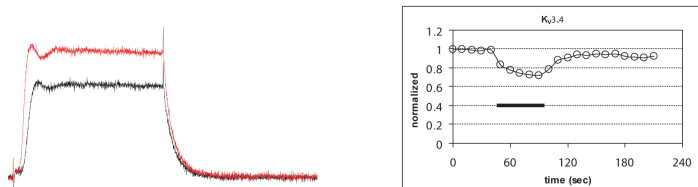
Modifications: Disulfide bonds between Cys⁴-Cys³⁹, Cys⁶-Cys³², and
Cys²²-Cys⁴⁰.

Molecular formula: C₂₁₄H₃₀₇N₅₇O₅₇S₆.

CAS No.: Not determined.

Activity: BDS-II blocks K_v3.4 current. The blocking effect is rapid, direct
and reversible¹.

Bioassay: BDS-II Inhibits K_v3.4 channels heterologously expressed in
Xenopus oocytes.



Left: example traces before (red) and during (black) bath perfusion of
1 μ M BDS-II (#B-450). Holding potential was -100 mV, test potential to
0 mV (100 ms) was delivered every 10 seconds. Recordings were made
while perfusing ND 96 Buffer. Right: time course for the experiment
shown on the left. The vertical bar indicates the period of BDS-II
perfusion.

Sizes: 5 μ g, 5 x 5 μ g, 10 μ g, 5 x 10 μ g, or 0.1 mg lyophilized powder.

Storage before reconstitution: Lyophilized powder can be stored intact
at room temperature for several weeks. For longer periods, it should be
stored at -20°C.

Reconstitution: Any aqueous buffer. Centrifuge all product preparations
before use (10000 x g 5 min).

Concentration after reconstitution: Dissolving 10 μ g in 0.209 ml gives a
stock solution of 10 μ M.

Storage and stability after reconstitution: Up to four weeks at 4°C or
three months at -20°C.

References:

1. Diochot, S. *et al.* (1998) *J. Biol. Chem.* **273**, 6744.

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