

BoxA from HMGB1, human & mouse

LPS-free

Product Number: *****
Expiration date: *****
Batch number: *****
Batch concentration: ***** mg/mL after addition of
 ***** μ L of distilled water.

Product Description:

BoxA is one of the highly conserved DNA binding domains of HMGB1 protein. It consists of 89 amino acids and has a calculated molecular mass of approximately 10.4 kDa.

The sequence of BoxA is totally identical in human and mouse. BoxA is tested for the ability to inhibit the chemotactic activity of HMGB1 on fibroblasts.

The protein is free from LPS (<0.1EU/mL). The product contains <0.006% v/v of Triton X-114 due to LPS removal procedure.

Reagent format:

The BoxA we provide is produced in *E.coli* and has no tags or additional amino acids.

The lyophilized protein once reconstituted will be dissolved in a solution containing 50 mM HEPES pH 7.9, 500 mM NaCl, 0,5 mM DTT.

Storage: 2-8°C. The protein once resuspended can be stored frozen (-20°C). The product is resistant to repeated freezing and thawing.

How to use product:

BoxA is an antagonist for HMGB1 and appears to inhibit all its activities, depending from all receptors.

Injection of 600 μ g BoxA in the mouse protects against sepsis in a peritonitis model (Yang *et al* 2004) and from hepatitis in a mouse model of HBV infection (Sitia *et al* 2007).

BoxA (10 μ g/mL) inhibits maturation, survival and Th1 differentiation of dendritic cells and T cell proliferation (Dumitriu *et al* 2005).

This product is for research use only

References:

- Ei Z.Z. *et al* (2023) The Role of Box A of HMGB1 in Enhancing Stem Cell Properties of Human Mesenchymal Cells: A Novel Approach for the Pursuit of Anti-aging Therapy. *In vivo* 37(5):2006-2017
- Peng J. *et al* (2022) High-Mobility Group Box 1 Inhibitor BoxA Alleviates Neuroinflammation-Induced Retinal Ganglion Cell Damage in Traumatic Optic Neuropathy. *Int. J.Mol Sci* 12:6715
- Pallante P. *et al* (2015) High mobility group A proteins as tumor markers. *Front. Med.* 2:15-19

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MGKGDPPKPR  GKSSSYAFFV  QTCREEHKKK
HPDASVNFSE  FSKKCSERWK  TMSAKEKGKF
EDMAKADKAR  YEREMKTYIP  PKGETKKKF
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Fig. 1. BoxA sequence



Fig. 2. SDS-PAGE with Coomassie Blue staining

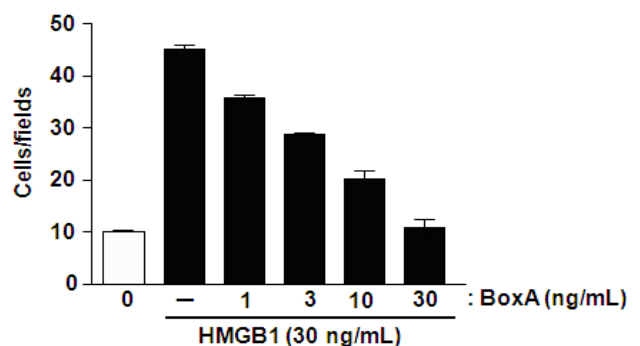


Fig. 3. Migration assay with 3T3 mouse cells