BoxA from HMGB1, human & mouse, LPS-free

Product Number: HM-011,HM-012;HM-013;HM-014
Expiration date: (depends on batch)
Batch number: (each batch has a specific tracking number)
Batch concentration: (depends on batch) after addition of (depends on batch) 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.
It contains only trace amounts of LPS (<0.4 ng/mg protein), and it is tested for the ability to inhibit the chemotactic activity of HMGB1 on fibroblasts.

Reagent format:
The BoxA we provide is produced in *E.coli* and has no tags or additional amino acids.
The product is lyophilized from 50 mM HEPES-Na buffer, pH 7.9, 500 mM NaCl and 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 µg 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 a*l 2007).
BoxA (10 µg/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

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MGKGDPKKPR GKMSSYAFFV QTCREEHKKK
HPDASVNFSE FSKKCSERWK TMSAKEKGKF
EDMAKADKAR YEREMKTYIP PKGETKKKF
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Fig. 1. BoxA from HMGB1 sequence

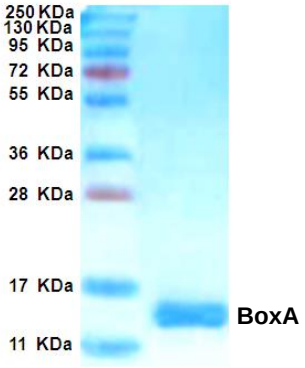

Fig. 2. 15% SDS-PAGE with Coomassie Blue staining

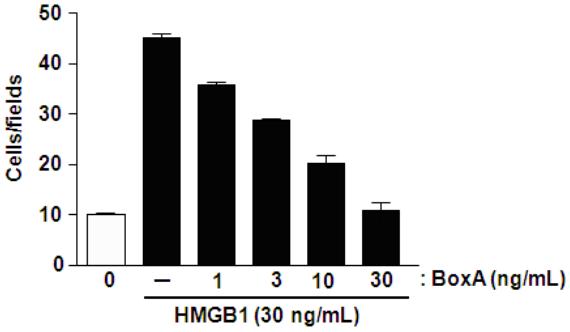

Fig. 3. Migration assay with 3T3 mouse cells

References:
Andrassy *et al* (2008) HMGB1 in ischemia-reperfusion injury of the heart. Circulation 117:3216-26
Dumitriu *et al* (2005) Release of HMGB1 by dendritic cells controls T cell activation via the receptor for advanced glycation endproducts (RAGE). J Immunol 174:7506-15
Maroso *et al* (2010) Toll-like receptor 4 and HMGB1 are involved in ictogenesis and can be targeted to reduce seizures. Nature Medicine 16:413-9
Muhammad *et al* (2008) The HMGB1 receptor RAGE mediates ischemic brain damage. J Neurosci 28:12023-31.
Sitia *et al* (2007) Treatment with HMGB1 inhibitors diminishes CTL-induced liver disease in HBV transgenic mice. J Leukoc Biol 81:100-7
Urbonaviciute *et al* (2008) Induction of inflammatory and immune responses by HMGB1-nucleosome complexes: implications for the pathogenesis of SLE. J Exp Med 205: 3007-18.
Yang *et al* (2004) Reversing established sepsis with antagonists of endogenous HMGB1. Proc Natl Acad Sci USA 101: 296-301