

HMGB1 recombinant protein

Recombinant Human HMGB1 Protein (His Tag), HPLC-verified

CATALOG #
AAA259172

HOST
HEK293 Cells

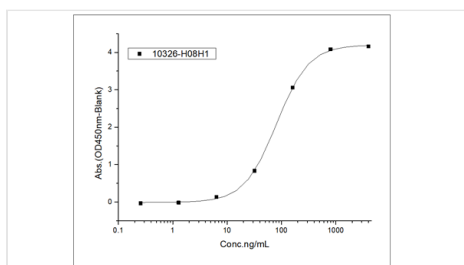
PRODUCT SYNONYMS

HMGB1; Recombinant Human HMGB1 Protein (His Tag); HPLC-verified; high mobility group box 1; HMG-1 Protein; Human; HMG1 Protein; HMG3 Protein; SBP-1 Protein; HMGB1 recombinant protein

PRODUCT SPECIFICATIONS

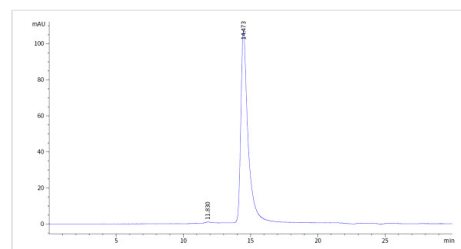
Host	HEK293 Cells
Purity/Purification	>= 95% as determined by SDS-PAGE. = 95% as determined by SEC-HPLC.
Form/Format	Lyophilized from sterile PBS, pH 7.4. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.
Species	Human
Predicted N Terminal	Gly 2
Endotoxin	<1.0 EU per ug of the protein as determined by the LAL method
Protein Construction	A DNA sequence encoding the Human HMGB1 (NP_002119.1)(Gly2-Glu215) was expressed with a polyhistidine tag at the C-terminus.
Activity	Immobilized Recombinant Human HMGB1 Protein (His Tag) at 2 ug/mL (100 uL/well) can bind Recombinant Human AGER/RAGE Protein (Fc Tag) , the EC50 is 40-120 ng/mL.
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

IMAGES

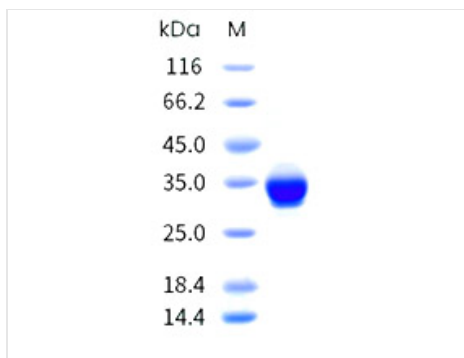


Application Data

Immobilized Recombinant Human HMGB1 Protein (His Tag) (#AAA259172) at 2 ug/mL (100 uL/well) can bind Recombinant Human AGER / RAGE Protein (Fc Tag) (Cat: 11629-H02H), the EC50 is 40-120 ng/mL.



Application Data



Application Data

ADDITIONAL INFORMATION

Related Product Information for HMGB1 recombinant protein

High-mobility group box 1 protein (HMGB1), also known as HMG-1 or amphoterin previously, is a member of the HMGB family consisting of three members, HMGB1, HMGB2, and HMGB3. HMGB1 is a DNA-binding nuclear protein, released actively following cytokine stimulation as well as passively during cell death. It is the prototypic damage-associated molecular pattern (DAMP) molecule and has been implicated in several inflammatory disorders. HMGB1 signals via the receptor for advanced glycation end-product (RAGE) and members of the toll-like receptor (TLR) family. The most prominent HMGB1 protein and mRNA expression arthritis are present in pannus regions, where synovial tissue invades articular cartilage and bone. HMGB1 promotes the activity of proteolytic enzymes, and osteoclasts need HMGB1 for functional maturation. As a non-histone nuclear protein, HMGB1 has a dual function. Inside the cell, HMGB1 binds DNA, regulating transcription, and determining chromosomal architecture. Outside the cell, HMGB1 can serve as an alarmin to activate the innate system and mediate a wide range of physiological and pathological responses. Extracellular HMGB1 represents an optimal "necrotic marker" selected by the innate immune system to recognize tissue damage and initiate reparative responses. However, extracellular HMGB1 also acts as a potent pro-inflammatory cytokine that contributes to the pathogenesis of diverse inflammatory and infectious disorders. HMGB1 has been successfully therapeutically targeted in multiple preclinical models of infectious and sterile diseases including arthritis. As shown in studies on patients as well as animal models, HMGB1 can play an important role in the pathogenesis of the rheumatic disease, including rheumatoid arthritis, systemic lupus erythematosus, and polymyositis among others. Besides, enhanced postmyocardial infarction remodeling in type 1 diabetes mellitus was partially mediated by HMGB1 activation.

References

Ulloa L, et al. (2006) High-mobility group box 1 (HMGB1) protein: friend and foe. *Cytokine Growth Factor Rev.* 17 (3): 189-201. Pisetsky DS, et al. (2008) High-mobility group box protein 1 (HMGB1): an alarmin mediating the pathogenesis of rheumatic disease. *Arthritis Res Ther.* 10 (3): 209. Volz HC, et al. (2010) The role of HMGB1/RAGE in inflammatory cardiomyopathy. *Semin Thromb Hemost.* 36(2): 185-94. Sims GP, et al. (2010) HMGB1 and RAGE in inflammation and cancer. *Annu Rev Immunol.* 28: 367-88. Andersson U, et al. (2010) The role of HMGB1 in the pathogenesis of rheumatic disease. *Biochim Biophys Acta.* 1799 (1-2): 141-8.

NCBI AND UNIPROT INFORMATION

Molecular Weight

The recombinant Human HMGB1 consisting of 225 amino acids and has a calculated molecular mass of 26.21 kDa. As a result of glycosylation, the recombinant protein migrates as an approximately 33.2 kDa protein in SDS-PAGE under reducing conditions.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/hmgb1-recombinant-protein-hek293-cells/259172>