

**Synonym**

HMGB1,HMG1,HMG3,SBP-1

**Source**

Human HMGB1, Mouse IgG2a Fc Tag, low endotoxin (HM1-H5255) is expressed from human 293 cells (HEK293). It contains AA Gly 2 - Glu 215 (Accession # [P09429-1](#)).

Predicted N-terminus: Glu

**Molecular Characterization**

mFc(Glu 98 - Lys 330) P01863	HMGB1(Gly 2 - Glu 215) P09429-1
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This protein carries a mouse IgG2a Fc tag at the N-terminus.

The protein has a calculated MW of 51.6 kDa. The protein migrates as 60 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

**Endotoxin**

Less than 0.1 EU per µg by the LAL method.

**Purity**

&gt;95% as determined by SDS-PAGE.

**Formulation**

Lyophilized from 0.22 µm filtered solution in 50 mM Tris, 100 mM Glycine, 150 mM NaCl, pH7.5. Normally trehalose is added as protectant before lyophilization.

Contact us for customized product form or formulation.

**Reconstitution**

Please see Certificate of Analysis for specific instructions.

*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.*

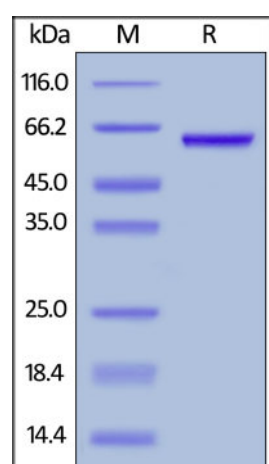
**Storage**

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

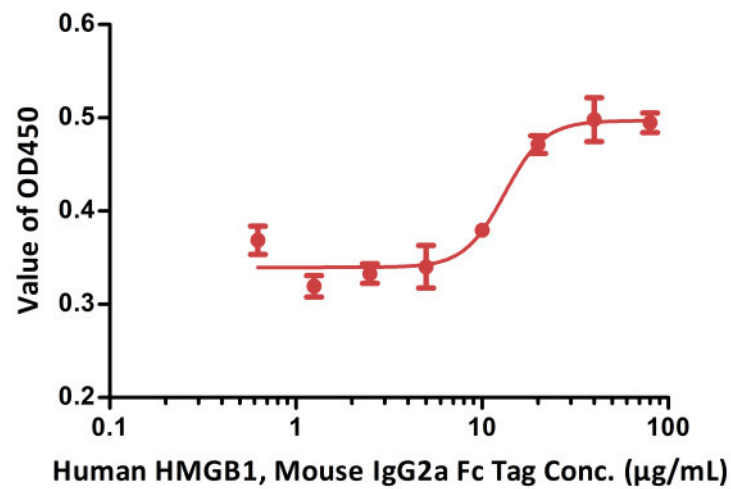
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

**SDS-PAGE**

Human HMGB1, Mouse IgG2a Fc Tag, low endotoxin on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue.

The purity of the protein is greater than 95%.

**Bioactivity-Cell based assay**

Human HMGB1 stimulates production of TNF- $\alpha$  in Raw-246.7 cells

Human HMGB1, Mouse IgG2a Fc Tag, low endotoxin (Cat. No. HM1-H5255) stimulates production of TNF- $\alpha$  in Raw-246.7 cells. The EC50 for this effect is 13.18  $\mu\text{g/mL}$  (Routinely tested).

### Background

High-mobility group protein B1 (HMGB1) is also known as high-mobility group protein 1 (HMG-1) and amphoterin, is a member of the HMGB family consisting of three members, HMGB1, HMGB2 and HMGB3. HMGB1 is a non-histone architectural chromosomal protein ubiquitously present in all vertebrate nuclei and binds double-stranded DNA without sequence specificity. The mechanism of inflammation and damage is binding to TLR4, which mediates HMGB1-dependent activation of macrophage cytokine release. This positions HMGB1 at the intersection of sterile and infectious inflammatory responses. HMGB1 has been studied as a DNA vaccine adjuvant and a target for cancer therapy.

### Clinical and Translational Updates

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.