

## High Mobility Group Protein 1 (HMG1) Active Protein | HMG1 active protein

Active High Mobility Group Protein 1 (HMG1)

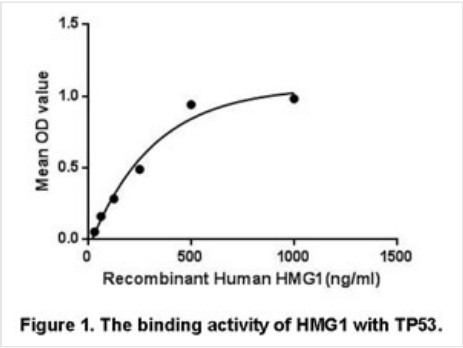
|                               |                          |                                                     |
|-------------------------------|--------------------------|-----------------------------------------------------|
| CATALOG #<br><b>AAA149231</b> | HOST<br><b>293F cell</b> | APPLICATIONS<br><b>Activity Assay, Cell Culture</b> |
|-------------------------------|--------------------------|-----------------------------------------------------|

### PRODUCT SYNONYMS

High Mobility Group Protein 1 (HMG1); Active High Mobility Group Protein 1 (HMG1); HMGB1; HMG3; SBP1; Sulfoglucuronyl Carbohydrate Binding Protein; Amphoterin; High Mobility Group Box 1 Protein; HMG1 active protein

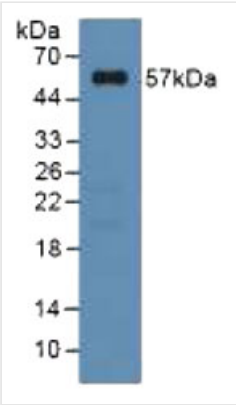
### PRODUCT SPECIFICATIONS

|                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                            | 293F cell                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Purity/Purification                             | >95%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Form/Format                                     | 20mM Tris, 150mM NaCl, pH8.0, containing 5%Trehalose.                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Applicable Applications for HMG1 active protein | Activity Assay, Cell Culture                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Organism Species                                | Homo sapiens (Human)                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Source                                          | Eukaryotic expression.                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Residues                                        | Met1~Glu215                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Tags                                            | N-terminal His-tag                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Endotoxin Level                                 | <1.0EU per 1ug (determined by the LAL method).                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Predicted isoelectric point                     | 5.6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Usage                                           | Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.                                                                                                                                                                                                                                                                                                                                                                                             |
| Preparation and Storage                         | <p>Storage: Avoid repeated freeze/thaw cycles.<br/>Store at 2-8°C for one month.<br/>Aliquot and store at -80°C for 12 months.</p> <p>Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.</p> |



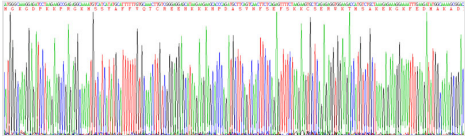
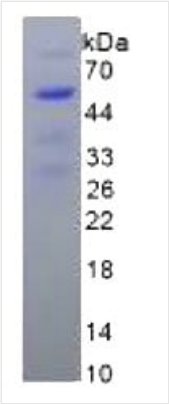
Bioactivity

High Mobility Group Protein 1 (HMG1), also known as high mobility group box 1 protein belongs to high mobility group and contains HMG-box domain. HMG1 is one of the most important chromatin proteins. This nuclear protein organizes the DNA and regulates transcription. It supports transcription of many genes in interactions with many transcription factors. HMGB1 is secreted by immune cells (like macrophages, monocytes and dendritic cells) through leaderless secretory pathway. Activated macrophages and monocytes secrete HMGB1 as a cytokine mediator of Inflammation. Besides, Tumor Protein p53 (TP53) has been identified as an interactor of HMG1, thus a binding ELISA assay was conducted to detect the interaction of recombinant human HMG1 and recombinant human TP53. Briefly, HMG1 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to TP53-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-HMG1 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50uL stop solution to the wells and read at 450nm immediately. The binding activity of HMG1 and TP53 was shown in Figure 1, and this effect was in a dose dependent manner.



WB (Western Blot)

Sample: Recombinant HMG1, Human; Antibody: Rabbit Anti-Human HMG1 Ab ("Please Inquire")



Gene Sequence

Gene Sequencing (extract)

SDS-PAGE

Sample: Active recombinant HMG1, Human

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MGKGDPPKPR GKSSYAFFV QTCREEHKKK HPDASVNFSE FSKKCSERWK
TMSAKEKGKF EDMAKADKAR YEREMKTYIP PKGETKKKKFK DPNAPKRPPS
AFFLFCSEYR PKIKGEHPGL SIGDVAKKLG EMWNTAADD KQPYEKKAAC
LKEKYEKDIA AYRAKGKPD AAKGVVKA EKSKKKKEEEE EDEEDEEEEE
EDEEDEEEEE DDDDE
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Sequence

ADDITIONAL INFORMATION

|                                                      |                    |
|------------------------------------------------------|--------------------|
| Product Categories/Family for HMG1<br>active protein | Infection immunity |
|------------------------------------------------------|--------------------|

NCBI AND UNIPROT INFORMATION

|             |         |
|-------------|---------|
| NCBI GI #   | 4504425 |
| NCBI GeneID | 3146    |

|                                  |                                                                                                                    |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------|
| NCBI Accession #                 | <a href="#">NP_002119.1</a>                                                                                        |
| NCBI GenBank Nucleotide #        | <a href="#">NM_002128.7</a>                                                                                        |
| UniProt Accession #              | <a href="#">P09429</a>                                                                                             |
| Molecular Weight                 | Predicted Molecular Mass: 51.2kDa<br>Accurate Molecular Mass: 57kDa as determined by SDS-PAGE reducing conditions. |
| NCBI Official Full Name          | high mobility group protein B1 isoform 1                                                                           |
| NCBI Official Synonym Full Names | high mobility group box 1                                                                                          |
| NCBI Official Symbol             | HMGB1                                                                                                              |
| NCBI Official Synonym Symbols    | HMG1; HMG3; HMG-1; SBP-1                                                                                           |
| NCBI Protein Information         | high mobility group protein B1                                                                                     |
| UniProt Protein Name             | High mobility group protein B1                                                                                     |
| UniProt Gene Name                | <b>HMGB1</b>                                                                                                       |
| UniProt Synonym Gene Names       | HMG1; HMG-1                                                                                                        |
| UniProt Entry Name               | HMGB1_HUMAN                                                                                                        |

**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.

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Online datasheet: <https://www.aaabiotech.com/293f-active-protein/high-mobility-group-protein-1-hmg1/149231>