

Product Information

HMG-1 **human, recombinant** **expressed in *E. coli***

Catalog Number **H4652**
Storage Temperature -20°C

Synonyms: High Mobility Group Protein; Amphoterin; HMGB1

Product Description

HMG-1, a prevalent non-histone chromatin component, is a non-sequence specific DNA binding protein. It participates in the regulation of chromatin structure as well as being involved (either as a positive or negative factor) with various aspects of DNA replication, transcription, repair, and ligation.¹⁻⁵ In addition, it has been identified as a membrane associated protein termed "amphoterin" that mediates neurite outgrowth,⁶ tumor outgrowth and metastasis,⁷ and participates in plasminogen activation.⁸ It is also recognized as a late mediator of endotoxin lethality in mice.⁹

HMG-1 is a highly conserved protein with more than 95% amino acid identity between rodent and human. HMG-1 contains 215 amino acids and has a molecular mass of ~25 kDa. It consists of two homologous HMG boxes, rich in basic amino acids, and an acidic tail at the C-terminus.

Human HMG-1 (Genbank accession number X12597) is expressed in *E. coli* as an N-terminal histidine-tagged protein, which appears on SDS-PAGE as a 31 kDa protein. It is purified under native conditions. The product is lyophilized from HEPES buffer, pH 7.8, containing sodium chloride, EDTA, TRITON® X-100, leupeptin, and AEBSF.

Purity: $\geq 90\%$ (SDS-PAGE)

Activity: Tested in a DNA retardation assay.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

Reconstitution of 1 vial with one ml of water results in a solution containing 20 mM HEPES buffer, pH 7.8, 150 mM NaCl, 0.2 mM EDTA, 0.1 % TRITON X-100, 2 mg/ml leupeptin, and 0.1 mM AEBSF. Mix by gentle agitation, DO NOT VORTEX.

Storage/Stability

The product ships on dry ice and storage at -20°C is recommended.

Store the reconstituted solution in working aliquots at -70°C . Repeated freezing and thawing is not recommended.

References

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