



RayBiotech, Inc.

3607 Parkway Lane suite 200
Norcross, GA 30092
Tel: 770-729-2992, 1-888-494-8555
Fax: 770-206-2393
Website: www.raybiotech.com
Email: info@raybiotech.com

Certificate of Analysis and Data Sheet

Recombinant Human High-Mobility Group Box 1 (HMGB1)

Catalog No.
228-10767

Source:
Escherichia coli

Synonyms

HMGB1, HMGB3, SBP-1, Amphoterin, HMGB1, High-Mobility Group Box 1.

Introduction

High-mobility group box 1 protein (HMGB1), previously known as HMG-1 or amphoterin, is a member of the high mobility group box family of non-histone chromosomal proteins. Human HMGB1 is expressed as a 30 kDa, 215 amino acid (aa) single chain polypeptide containing three domains: two N-terminal globular, 70 aa positively charged DNA-binding domains (HMG boxes A and B), and a negatively charged 30 aa C-terminal region that contains only Asp and Glu. 4, 5 Residues 27 - 43 and 178 - 184 contain a NLS. Posttranslational modifications of the molecule have been reported, with acetylation occurring on as many as 17 lysine residues. HMGB1 is expressed at high levels in almost all cells. It was originally discovered as a nuclear protein that could bend DNA. Such bending stabilizes nucleosome formation and regulates the expression of select genes upon recruitment by DNA binding proteins.

Description

HMGB1 Human Recombinant fused with 6X His tag produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 223 amino acids and having a molecular mass of 26 kDa. The HMGB-1 is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

The HMGB1 (1 mg/ml) was lyophilized after extensive dialyses against 1x PBS pH-7.4.

Solubility

It is recommended to reconstitute the lyophilized HMGB1 in sterile 18MΩ-cm H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



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Stability

Lyophilized HMGB1 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution HMGB1 should be stored at 4°C between 2-7 days and for future use below -18°C.

For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Please prevent freeze-thaw cycles.

Purity

Greater than 95.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

Sequence

MGKGDPPKPRGKMSSYAFFVQTCREEHKKKHPDASVNFSEFSKKCSERWKT
MSAKEKGKFEDMAKADKARYEREMKTYIPPKGETKKKFKDPNAPKRPPSAFF
LFCSEYRPKIKGEHPGLSIGDVAKKLGEMWNNTAADDKQPYEKKA AKLKEKY
EKDIAAYRAKGKPDAAKKGVVKA EKSKKKEEEEDEEDEDEEEEEDEEDEDE
EEDDDDELEHHHHHHH

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