



RayBiotech, Inc.

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Certificate of Analysis and Data Sheet

Recombinant Human High Mobility Group Box 1, Sf9

Catalog No.
228-10768

Source
Baculovirus

Synonyms

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

Introduction

HMGB1 is an abundant chromatin-binding protein found in eukaryotic cell nucleus and acts in the assembly of nucleoprotein complexes. Inside the cell, HMGB1 binds to DNA and is involved in transcriptional regulation. Outside the cell, HMGB1 acts as a cytokine with activities that resemble those of tumor necrosis factor (TNF). HMGB1 is elevated significantly in chronic kidney disease patients and correlates with glomerular filtration rate as well as with markers of inflammation and malnutrition. HMGB1 is involved in Gram-negative sepsis by catalyzing movement of LPS monomers from LPS aggregates to CD14 to initiate a TLR4-mediated pro-inflammatory response. HMGB1 plays an important role in the relationship between necrosis and malignancy in glioma tumors. HMGB1 protein is induced by Mycobacterium bovis BCG. Over-expression of HMGB1 is common in gastrointestinal stromal tumors and is related to the KIT mutation. HMGB1 induces growth inhibition and apoptosis in macrophages through RAGE intracellular signaling pathway. The increase of extracellular HMGB1 observed in salivary glands of Sjogren's syndrome patients indicates that HMGB-1 is involved in the inflammatory process of the disease. HMGB-1 together with estrogen increase cell cycle progression in tumor cell lines.

Description

HMGB1 Human Recombinant fused to His-Tag produced in High Five insect cells is a single, glycosylated, polypeptide chain containing 223 amino acids and having a molecular mass of 25 kDa. The HMGB1 is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile Filtered colorless solution.

Formulation

The HMGB1 solution (1mg/ml) contains 20mM Tris pH-8, 1mM EDTA, 0.5mM DTT and 10% glycerol.

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



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Amino Acid Sequence

MGKGDPKKPR GKMSSYAFFV QTCREEHKKK HPDASVNFSE FSKKCSERWK TMSAKEKGKF
EDMAKADKAR YEREMKTYIP PKGETKKKFK DPNAPKRPPS AFFLFCSEYR PKIKGEHPGL
SIGDVAKKLG EMWNNTAADD KQPYEKKA AK LKEYEKDIA AYRAKGKPD A
AKKGVVKA EK SKKKKEEEED EEDEEDEEEE EDEEDEDEEEE DDDDELEHHH HHH

Purity

Greater than 90% as determined by:

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

Stability

HMG1 although stable 4°C for 4 weeks, should be stored desiccated 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.

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