



Product Datasheet

Product Name	High-Mobility Group Box 1 Human Recombinant, Sf9
Cata No	CB501467
Source	<i>Baculovirus</i>
Synonyms	HMG1, HMG3, SBP-1, Amphoterin, HMGB1, High-Mobility Group Box 1.

Description

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 proinflammatory response. HMGB1 plays an important role in the relationship between necrosis and malignancy in glioma tumours. HMG1 protein is induced by *Mycobacterium bovis* BCG. Overexpression of HMGB1 is common in gastrointestinal stromal tumors and is related to the KIT mutation. HMG1 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. HMG1 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.

Purity

Greater than 90% as determined by:

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

Formulation

The HMG1 solution (1mg/ml) contains 20mM Tris pH-8, 1mM EDTA, 0.5mM DTT and 10% glycerol.

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.

Sequence

MGKGDPPKPR GKMSYAFFV QTCREEHKKK
HPDASVNFSE FSKKCSERWK TMSAKEKGF
EDMAKADKAR YEREMKTYIP PKGETKKKFK
DPNAPKRPPS AFFLFCSEYR PKIKGEHPGL
SIGDVAKKLG EMWNNTAADD KQPYEKKA
LKEKYEKIDIA AYRAKGPDA AKKGVVKA
SKKKKEEEEE EDEEDEEEEE EDEEDEEEEE
DDDELEHHH HHH

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