

Active Recombinant Human High-Mobility Group Box 1

Cat. No. HMGB1-1048H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Species Human

Source E.coli

Description

High mobility group 1 (HMG1) is a 26 kDa highly conserved non-sequence-specific DNA-binding nuclear protein. Mammalian HMG1 has two homologous DNA binding domains HMG boxes, A and B (each of 80–90 amino-acid residues), linked by a short basic region to an acidic C-terminal domain containing 30 consecutive Asp and Glu residues. HMG1 has been implicated in a number of fundamental biological processes including transcription, replication, and recombination, in which it plays a role in manipulating DNA structure by bending, looping, compaction, or unwinding, or by direct contacts with distinct cellular proteins. HMG1 can act as a repressor, by interacting with TBP to block pre-initiation complex formation or as an activator, by facilitating the binding of various transcription factors to their cognate DNA sequences. Most recently, it was discovered that HMG-1 is a late mediator of delayed endotoxin lethality by activating downstream cytokine release. Recombinant HMG1 is isolated from an E. coli strain that carries the coding sequence of the human HMG1 under the control of a T7 promoter.

Purity >95% by SDS-PAGE.

Form Liquid. Supplied in 20 mM Tris-HCl, pH 8.0, 100 mM KCl, 0.2 mM EDTA, 1 mM DTT, 20% glycerol.

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Activity	1 ng is sufficient for a gel mobility shift assay in a 20 µl reaction to super-shift TBP-DNA complex, 20 ng are sufficient for reconstituted transcription assay and 100 ng are sufficient for a protein-protein interaction assay.
Application	HMG1 has been applied in in vitro transcription assays, DNA-protein and protein-protein interactions assays.
Usage	For in vitro use only.
Storage	Quality guaranteed for 12 months. Store at -80°C. Avoid freeze / thaw cycles.

GENE INFORMATION

Gene Name	HMGB1 high-mobility group box 1 [Homo sapiens]
Synonyms	HMGB1; high-mobility group box 1; HMG1; HMG3; SBP-1; DKFZp686A04236; Sulfoglucuronyl carbohydrate binding protein; Amphoterin; high mobility group protein 1; High mobility group protein B1; High mobility group protein 1; HMG-1; DKFZp686A04236; OTTHUMP00000190860; OTTHUMP00000018199; high-mobility group (nonhistone chromosomal) protein 1
Gene ID	3146
mRNA Refseq	NM_002128
Protein Refseq	NP_002119
MIM	163905
UniProt ID	P09429

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Chromosome Location	13q12
Pathway	Base excision repair
Function	DNA bending activity; transcription factor binding

PDB rendering based on 1aab

