Active Native Bovine HMGB1

Cat. No. HMGB1-8447B **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Native Bovine HMGB1 was purified from Calf Thymus.
Species	Calf
Source	Calf Thymus
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 directly contacting with distinct cellular proteins . HMG-1 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.
Form	20 mM Tris-Cl, pH 7.9, 20% Glycerol, 100 mM KCl, 1 mM DTT and 0.2 mM EDTA
Bio-activity	1 unit equals 1 ng of purified protein. 10-100 units are required for a gel mobility shift assay in a 20µl reaction to super-shift TBP-DNA complex, 50-500 units are required for a reconstituted transcription assay and 100 units are sufficient for a protein-protein

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	interaction assay.
AA Sequence	MGKGDPKKPR GKMSSYAFFV QTCREEHKKK HPDASVNFSE FSKKCSERWK TMSAKEKGKF EDMAKADKAR YEREMKTYIP PKGETKKKFK DPNAPKRPPS AFFLFCSEYR PKIKGEHPGL SIGDVAKKLG EMWNNTAADD KQPYEKKAAK LKEKYEKDIA AYRAKGKPDA AKKGVVKAEK SKKKKEEEED EEDEEDEEEE EDEEDEEEEE DDDDE
Purity	>95% as determined by SDS-PAGE
Storage	-80 °C
Concentration	900 μg/ml
Shipping	Dry Ice

GENE INFORMATION

Gene Name	HMGB1 high mobility group box 1 [Bos taurus]
Official Symbol	HMGB1
Synonyms	HMGB1; high mobility group box 1; high mobility group protein B1; HMG-1; high mobility group protein 1
Gene ID	282691
mRNA Refseq	NM_176612
Protein Refseq	NP_788785

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UniProt ID	10103
Chromosome Location	chromosome: 12
Pathway	Androgen Receptor Signaling Pathway, organism-specific biosystem; Base excision repair, organism-specific biosystem; Base excision repair, conserved biosystem
Function	DNA binding, bending; chemoattractant activity; damaged DNA binding; double-stranded DNA binding

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