

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	<p>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.</p>
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

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

interaction assay.

AA Sequence

MGKGDPPKPR GKMSYAFFV QTCREEHKKK HPDASVNFSE FSKKCSERWK
 TMSAKEKGKF EDMAKADKAR YEREMKTYIP PKGETKKKFK DPNAPKRPPS
 AFFLFCSEYR PKIKGEHPGL SIGDVAKKLG EMWNNTAADD KQPYEKKA
 LKEKYEKDIA AYRAKGKPPA AKKGVVKA EK SKKKKEEEED EDEEEDDEEE
 EDEEEDDEEE 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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