HMGB1
Native Bovine High Mobility Group 1

Catalog No.	CSI13926	**Quantity:**	10 µg

Description:

HMG1 was purified from calf thymus using several steps of conventional and FPLC chromatography.

High Mobility Group 1 (HMG1) is a 26 kDa highly conserved non-sequence-specific DNA-binding nuclear protein. Mammalian HMG1 has two homologous DNAbinding 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. HMG1 can act as a repressor, by interacting with TBP to block preinitiation 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 HMG1 is a late mediator of delayed endotoxin lethality by activating downstream cytokine release.

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The purified calf thymus HMG1 protein is greater than 95% homogeneous and contains no detectable protease, DNase, and RNase activity.

Gene ID: 282691

Molecular Weight: 26 kDa

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

Purity: > 95% by SDS-PAGE

Activity: 1 ng is required for a gel mobility shift assay in a 20 µl reaction to super-shift TBP-DNA complex, 20 ng are required for reconstituted transcription assays and 100 ng are sufficient for a protein-protein interaction assay.

Applications: HMG1 has been applied in *in vitro* transcription assays, DNA-protein and protein-protein interaction assays.

Storage & Stability: Stable for 1 year in working aliquots at -80°C. **Avoid repeated freeze-thaw cycles.**

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