HMGB1
Recombinant Human HMG His

Catalog No.	CSI20149A	**Quantity:**	10 µg
	CSI20149B		50 µg
	CSI20149C		1.0 mg

Alternate Names: High mobility group protein B1, HMG-1, Amphoterin, high mobility group box 1, high mobility group protein 1, Sulfoglucuronyl carbohydrate binding protein, high-mobility group (nonhistone chromosomal) protein 1

Description: Recombinant Human HMG His a single non-glycosylated polypeptide chain containing 223 amino acids and a His Tag.

Source: *E. coli*

Molecular Weight: 26.0 kDa

Formulation: Lyophilized from a 0.2 µm sterile filtered solution of PBS, pH 7.4.

Purity: >95% by SDS-PAGE and HPLC analyses.

Endotoxin Level: < 0.1 ng/µg

Amino Acid Sequence: MGKGDPKKPR GKMSSYAFFV QTCREEHKKK HPDASVNFSE FSKKCSERWK TMSAKEKGKF EDMAKADKAR YEREMKTYIP PKGETKKKFK DPNAPKRPPS AFFLFCSEYR PKIKGEHPGL SIGDVAKKLG EMWNNTAADD KQPYEKKAAK LKEKYEKDIA AYRAKGKPDA AKKGVVKAEK SKKKKEEEED EEDEEDEEEE EDEEDEDEEE DDDDELEHHH HHH

Reconstitution: **Centrifuge vial prior to opening.** Add sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. **Please note that the addition of any carrier protein into this product may produce unwanted endotoxin. This depends upon the particular application employed.** Further dilutions should be made in appropriate buffered solutions.

Storage & Stability: Stable at 2-8°C, but best kept desiccated -20°C. Upon reconstitution, stable for up to 1 week at 2-8°C. For longer term, store in working aliquots below -20°C. **Avoid repeated freeze/thaw cycles.**

Background: Human High-mobility group box 1 protein (HMGB1), previously known as HMG-1 or amphoterin, is a member of the high mobility group box family of non-histone chromosomal proteins. Human HMGB1 is expressed as a 30 kDa, 215 amino acid (aa) single chain polypeptide containing three domains: two N-terminal globular, 70 aa positively charged DNA-binding domains (HMG boxes A and B), and a negatively charged 30 aa C-terminal region that contains only Asp and Glu.4, 5 Residues 27-43 and 178-184 contain a NLS. Post translational modifications of the molecule have been reported, with acetylation occurring on as many as 17 lysine residues. HMGB1 is expressed at high levels in almost all cells. It was originally discovered as a nuclear protein that could bend DNA. Such bending stabilizes nucleosome formation and regulates the expression of select genes upon recruitment by DNA binding proteins.

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