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## Technical Data Sheet

### For research use only

Not intended or approved for  
diagnostic or therapeutic use.

**Product Name:** High Mobility Group Box 1 (HMGB1)

**Product Number:** G-HMGB1

**Storage:** Store protein at -80 °C. Protein is stable for at least 6 months from date of shipment. Avoid freeze and thaw after reconstitution.

**Description:** HMGB1, previously known as HMG-1, belongs to the HMG protein family. HMG proteins are very basic non-histone chromosomal proteins that have the ability to bind and modify DNA. Human HMGB1 is a small protein of 215 amino acids containing three domains: two lysine-rich DNA binding boxes (A- and B-) and an acidic C-terminal tail. HMGB1 is the only HMG protein shown to activate the Receptor for Advanced Glycation Endproducts (RAGE). RAGE has the ability to induce inflammatory response. Thus, HMGB1 has been found to be up regulated in many types of tumor and inflammatory disease such as colon cancer and arthritis.

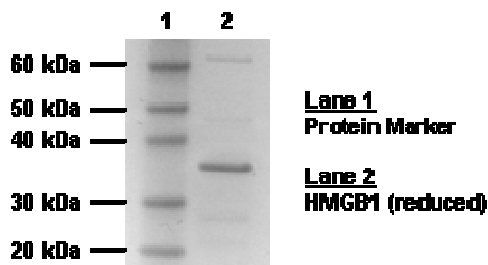
**Source:** Recombinant human HMGB1 with N-terminal his-tagged expressed in *E.coli*.

**Reconstitution:** Reconstitute 1 vial of HMGB1 with 50 µL of water results in a solution containing 3% dextrose, 4% HEPES, 8% trehalose, 0.2% Tween20, 5 mM phosphate buffer, 1.35 mM potassium chloride and 68.5 mM sodium chloride, pH 7.4

**Concentration:** 1 mg/mL after reconstitution

**Suggested Use:** This protein has not been tested for any functionality. 1-10 µg/mL in Direct ELISA as coating. 0.5-1 µg in Western Blot as control. Optimal usage concentration should be determined by researcher. *Other applications have not been tested.*

**Purity:** On SDS-PAGE commassie staining gel under reducing condition, the HMGB1 showed a band at ~35 kDa with purity ≥ 80%.



**References:** Genschel J, Modrich P. Functions of MutLalpha, replication protein A (RPA), and HMGB1 in 5'-directed mismatch repair. *J Biol Chem.* 2009 Aug 7;284(32):21536-44.

**Related Products:** Carboxymethyl Lysine (CML) Competitive ELISA (K-3900)