

Recombinant Mouse Hmgb2 Protein, Myc/DDK-tagged

Cat. No. Hmgb2-3412M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of mouse full-length high mobility group box 2 (cDNA clone MGC:6061 IMAGE:3489780), complete cds, with C-terminal MYC/DDK tag, expressed in HEK293T cells.
Species	Mouse
Source	HEK293
Description	Multifunctional protein with various roles in different cellular compartments. May act in a redox sensitive manner. In the nucleus is an abundant chromatin-associated non-histone protein involved in transcription, chromatin remodeling and V(D)J recombination and probably other processes. Binds DNA with a preference to non-canonical DNA structures such as single-stranded DNA. Can bent DNA and enhance DNA flexibility by looping thus providing a mechanism to promote activities on various gene promoters by enhancing transcription factor binding and/or bringing distant regulatory sequences into close proximity. Involved in V(D)J recombination by acting as a cofactor of the RAG complex: acts by stimulating cleavage and RAG protein binding at the 23 bp spacer of conserved recombination signal sequences (RSS). Proposed to be involved in the innate immune response to nucleic acids by acting as a cytoplasmic promiscuous immunogenic DNA/RNA sensor which cooperates with subsequent discriminative sensing by specific pattern recognition receptors. In the extracellular compartment acts as a chemokine. Promotes proliferation and migration of endothelial cells implicating AGER/RAGE. Has antimicrobial activity in gastrointestinal epithelial tissues. Involved in inflammatory response to antigenic

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stimulus coupled with proinflammatory activity. May play a role in germ cell differentiation. Involved in modulation of neurogenesis probably by regulation of neural stem proliferation. Involved in articular cartilage surface maintenance implicating LEF1 and the Wnt/beta-catenin pathway.

Molecular Mass	24.2 kDa
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 µg/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

GENE INFORMATION

Gene Name	Hmgb2 high mobility group box 2 [<i>Mus musculus</i> (house mouse)]
Official Symbol	Hmgb2
Synonyms	Hmgb2; high mobility group box 2; Hmg2; HMG-2; C80539; high mobility group protein B2; high mobility group protein 2
Gene ID	97165
mRNA Refseq	NM_008252

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Protein Refseq	NP_032278
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UniProt ID	P30681
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