

Product datasheet for **MC202770**

Hmgb2 (NM_008252) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Hmgb2 (NM_008252) Mouse Untagged Clone
Tag: Tag Free
Symbol: Hmgb2
Synonyms: C80539; HMG-2; Hmg2
Mammalian Cell Selection: Neomycin
Vector: PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection: Kanamycin (25 ug/mL)

Fully Sequenced ORF: >BC083108 sequence for NM_008252
GCCGGAGCTTGGGGAAGGAAGTCTCTGCGGAGGTCTGAGGGAAGCAGCGCTCGCAGCAGGTAGACAGA
CGCCGCGCCGTCGTCATGGGCAAGGGTGACCCCAACAAGCCGCGGGGCAAATGTCTCGTACGCCCTTCT
TCGTGCAGACCTGCCGCGAGGAGCACAAAGAAGAAGCATCCCGACTCGTCGGTGAACCTTCGCCGAGTTCTC
CAAGAAATGCTCCGAGAGATGGAAGACCATGTCTGCAAAGGAAAAAGTCCAAGTTTGAAGATTTGGCCAAG
AGCGACAAAGCTCGTTATGACAGGGAGATGAAGAACTATGTTCTCCCAAAGGGGATAAGAAAGGAAAGA
AAAAAGACCCCAATGCTCCGAAGAGACCACCGTCTGCCTTCTTCTGTTTTGCTCTGAAAATCGCCCAAA
GATCAAAATTGAACACCCAGGCCTGTCTATTGGAGATACTGCGAAGAACTGGGTGAGATGTGGTCTGAG
CAATCTGCCAAAGATAAACAACCGTATGAGCAGAAAGCAGCTAACTAAAGGAGAAGTATGAAAAGGATA
TTGCTGCATACCGTGCCAAGGGCAAAAGTGAAGCAGGAAAGAAGGGTCTGGTAGGCCAACAGGCTCAA
GAAGAAGAACGAACCAAGATGAGGAGGAGGAAGAAGAGGAGGAAGAGGAGGAAGATGACGAGGAAGAA
GAGGAGGATGAAGAATAAGTGGCTGTCTAAAGTGTGGAGTATATTTGCTCAGGCAATTATTTGCTAAG
AATGTGAAATTCAAGTGCAGCTCAACATTAGCTTCAGTATAAAAACTGTACAGATTTTTGTATAGCTGAT
GAGATTCTTTGTAGAGAAAATACTTTTTAAGAAGTTTTGTAGCTTTTTTCAGGGGCTACAACACTACAGTTA
GATTTAAAGCTTTTGTATGTTGAATGTTTCTAAATATTTAATGTTTTCTTTAATTTCTTATGCTAGCAAAA
AAAAAATTCATAGGAATTTGTATTACCAGTAAAAATTTTTTTAGGATGTTGCATTTTTTTGTTTTTTT
TTAAATTTGTAATAAAAATAATGTATATTAATAAAAAAAAAAAAAAAAAA

Restriction Sites: RsrII-NotI

ACCN: NM_008252

Insert Size: 633 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).



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Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	<u>BC083108</u> , <u>AAH83108</u>
RefSeq Size:	1094 bp
RefSeq ORF:	633 bp
Locus ID:	97165
UniProt ID:	<u>P30681</u>
Cytogenetics:	8 29.9 cM
Gene Summary:	<p>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 (By similarity). 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) (PubMed:9184213). 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 (PubMed:19890330). In the extracellular compartment acts as a chemokine. Promotes proliferation and migration of endothelial cells implicating AGER/RAGE (By similarity). Has antimicrobial activity in gastrointestinal epithelial tissues (By similarity). Involved in inflammatory response to antigenic stimulus coupled with proinflammatory activity (PubMed:25306442). May play a role in germ cell differentiation (PubMed:11262228). Involved in modulation of neurogenesis probably by regulation of neural stem proliferation (PubMed:24391977). Involved in articular cartilage surface maintenance implicating LEF1 and the Wnt/beta-catenin pathway (PubMed:19805379).[UniProtKB/Swiss-Prot Function]</p> <p>Transcript Variant: This variant (2) differs in the 5' UTR compared to variant 1. All 4 variants encode the same protein.</p>