

HMGB2 Antibody (Center) Blocking peptide
Synthetic peptide
Catalog # BP7195c**Specification**

HMGB2 Antibody (Center) Blocking peptide - Product InformationPrimary Accession [P26583](#)**HMGB2 Antibody (Center) Blocking peptide - Additional Information****Gene ID** 3148**Other Names**

High mobility group protein B2, High mobility group protein 2, HMG-2, HMGB2, HMG2

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP7195c](/products/AP7195c) was selected from the Center region of human HMGB2. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

HMGB2 Antibody (Center) Blocking peptide - Protein Information**Name** HMGB2**Synonyms** HMG2**Function**

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 bend 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 (PubMed:[7797075](http://www.uniprot.org/citations/7797075), PubMed:[11909973](http://www.uniprot.org/citations/11909973), PubMed:[19522541](http://www.uniprot.org/citations/19522541), PubMed:

href="http://www.uniprot.org/citations/18413230" target="_blank">18413230, PubMed:19965638, PubMed:20123072). 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) (By similarity). Proposed to be involved in the innate immune response to nucleic acids by acting as a promiscuous immunogenic DNA/RNA sensor which cooperates with subsequent discriminative sensing by specific pattern recognition receptors (By similarity). In the extracellular compartment acts as a chemokine. Promotes proliferation and migration of endothelial cells implicating AGER/RAGE (PubMed:19811285). Has antimicrobial activity in gastrointestinal epithelial tissues (PubMed:23877675). Involved in inflammatory response to antigenic stimulus coupled with pro- inflammatory activity (By similarity). Involved in modulation of neurogenesis probably by regulation of neural stem proliferation (By similarity). Involved in articular cartilage surface maintenance implicating LEF1 and the Wnt/beta-catenin pathway (By similarity).

Cellular Location

Nucleus. Chromosome. Cytoplasm. Secreted. Note=In basal state predominantly nuclear.

Tissue Location

Expressed in gastric and intestinal tissues (at protein level).

HMGB2 Antibody (Center) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

HMGB2 Antibody (Center) Blocking peptide - Images

HMGB2 Antibody (Center) Blocking peptide - Background

HMGB2 is a member of the non-histone chromosomal high mobility group protein family. The proteins of this family are chromatin-associated and ubiquitously distributed in the nucleus of higher eukaryotic cells. In vitro studies have demonstrated that this protein is able to efficiently bend DNA and form DNA circles. These studies suggest a role in facilitating cooperative interactions between cis-acting proteins by promoting DNA flexibility. This protein was also reported to be involved in the final ligation step in DNA end-joining processes of DNA double-strand breaks repair and V(D)J recombination.

HMGB2 Antibody (Center) Blocking peptide - References

Majumdar A., Brown D. 19:6643-6643(1991)Shirakawa H., Yoshida M.J..
267:6641-6645(1992)Alexandre S., Li W.W.Nucleic Acids Res. 20:6413-6413(1992)Fan Z., Beresford P.J.Mol. Cell. Biol. 22:2810-2820(2002)