

**HMG1L10 Antibody (N-term) Blocking peptide**  
**Synthetic peptide**  
**Catalog # BP12194a****Specification**

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**HMG1L10 Antibody (N-term) Blocking peptide -  
Product Information**

Primary Accession [P09429](#)  
Other Accession [Q9UGV6](#)

**HMG1L10 Antibody (N-term) Blocking peptide -  
Additional Information**

**Gene ID** 3146

**Other Names**

High mobility group protein B1, High mobility group protein 1, HMG-1, HMGB1, HMG1

**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.

**HMG1L10 Antibody (N-term) Blocking peptide -  
Protein Information**

**Name** HMGB1

**Synonyms** HMG1

**Function**

Multifunctional redox sensitive protein with various roles in different cellular compartments. In the nucleus is one of the major chromatin-associated non-histone proteins and acts as a DNA chaperone involved in replication, transcription,

**HMG1L10 Antibody (N-term) Blocking peptide - Background**

HMGB1L10 binds preferentially single-stranded DNA and unwinds double stranded DNA (By similarity).

chromatin remodeling, V(D)J recombination, DNA repair and genome stability (Ref.71). Proposed to be an universal biosensor for nucleic acids. Promotes host inflammatory response to sterile and infectious signals and is involved in the coordination and integration of innate and adaptive immune responses. In the cytoplasm functions as sensor and/or chaperone for immunogenic nucleic acids implicating the activation of TLR9-mediated immune responses, and mediates autophagy. Acts as danger associated molecular pattern (DAMP) molecule that amplifies immune responses during tissue injury (PubMed:<a href="http://www.uniprot.org/citations/27362237" target="\_blank">27362237</a>). Released to the extracellular environment can bind DNA, nucleosomes, IL-1 beta, CXCL12, AGER isoform 2/sRAGE, lipopolysaccharide (LPS) and lipoteichoic acid (LTA), and activates cells through engagement of multiple surface receptors. In the extracellular compartment fully reduced HMGB1 (released by necrosis) acts as a chemokine, disulfide HMGB1 (actively secreted) as a cytokine, and sulfonyl HMGB1 (released from apoptotic cells) promotes immunological tolerance (PubMed:<a href="http://www.uniprot.org/citations/23519706" target="\_blank">23519706</a>, PubMed:<a href="http://www.uniprot.org/citations/23446148" target="\_blank">23446148</a>, PubMed:<a href="http://www.uniprot.org/citations/23994764" target="\_blank">23994764</a>, PubMed:<a href="http://www.uniprot.org/citations/25048472" target="\_blank">25048472</a>). Has proangiogenic activity (By similarity). May be involved in platelet activation (By similarity). Binds to phosphatidylserine and phosphatidylethanolamide (By similarity). Bound to RAGE mediates signaling for neuronal outgrowth (By similarity). May play a role in accumulation of expanded polyglutamine (polyQ) proteins such as huntingtin (HTT) or TBP (PubMed:<a href="http://www.uniprot.org/citations/23303669" target="\_blank">23303669</a>, PubMed:<a href="http://www.uniprot.org/citations/25549101" target="\_blank">25549101</a>).

### Cellular Location

Nucleus {ECO:0000269|PubMed:12231511,  
 ECO:0000269|PubMed:17114460,  
 ECO:0000269|PubMed:20819940,  
 ECO:0000269|PubMed:22869893,  
 ECO:0000269|PubMed:27362237,  
 ECO:0000269|PubMed:29618516,  
 ECO:0000269|Ref.71}. Chromosome  
 {ECO:0000250|UniProtKB:P10103,  
 ECO:0000250|UniProtKB:P63159,  
 ECO:0000305}. Cytoplasm  
 {ECO:0000269|PubMed:11154118,  
 ECO:0000269|PubMed:12231511,  
 ECO:0000269|PubMed:17114460,  
 ECO:0000269|PubMed:20819940,  
 ECO:0000269|PubMed:22869893,  
 ECO:0000269|PubMed:29618516,  
 ECO:0000269|Ref.71}. Secreted  
 {ECO:0000250|UniProtKB:P63158,  
 ECO:0000269|PubMed:12231511,  
 ECO:0000269|PubMed:14532127,  
 ECO:0000269|PubMed:15944249,  
 ECO:0000269|PubMed:19811284,  
 ECO:0000269|PubMed:22869893,  
 ECO:0000269|Ref.71}. Cell membrane  
 {ECO:0000250|UniProtKB:P63158,  
 ECO:0000250|UniProtKB:P63159,  
 ECO:0000269|PubMed:11154118};  
 Peripheral membrane protein  
 {ECO:0000250|UniProtKB:P63158,  
 ECO:0000250|UniProtKB:P63159,  
 ECO:0000269|PubMed:11154118};  
 Extracellular side  
 {ECO:0000250|UniProtKB:P63158,  
 ECO:0000250|UniProtKB:P63159,  
 ECO:0000269|PubMed:11154118}.  
 Endosome  
 {ECO:0000250|UniProtKB:P63158}.  
 Endoplasmic reticulum-Golgi intermediate  
 compartment  
 {ECO:0000250|UniProtKB:P63158}.  
 Note=In basal state predominantly nuclear.  
 Shuttles between the cytoplasm and the  
 nucleus (PubMed:12231511,  
 PubMed:17114460). Translocates from the  
 nucleus to the cytoplasm upon autophagy  
 stimulation (PubMed:20819940) Release  
 from macrophages in the extracellular  
 milieu requires the activation of NLRC4 or  
 NLRP3 inflammasomes (By similarity).  
 Passively released to the extracellular  
 milieu from necrotic cells by diffusion,  
 involving the fully reduced HGMB1 which  
 subsequently gets oxidized  
 (PubMed:19811284). Also released from  
 apoptotic cells (PubMed:16855214,  
 PubMed:18631454). Active secretion from a  
 variety of immune and non- immune cells

such as macrophages, monocytes, neutrophils, dendritic cells and natural killer cells in response to various stimuli such as LPS and cytokines involves a nonconventional secretory process via secretory lysosomes (PubMed:12231511, PubMed:14532127, PubMed:15944249). Secreted by plasma cells in response to LPS (By similarity). Found on the surface of activated platelets (PubMed:11154118). An increased chromatin association is observed when associated with the adenovirus protein pVII (PubMed:27362237) {ECO:0000250|UniProtKB:P63158, ECO:0000269|PubMed:11154118, ECO:0000269|PubMed:12231511, ECO:0000269|PubMed:14532127, ECO:0000269|PubMed:15944249, ECO:0000269|PubMed:16855214, ECO:0000269|PubMed:17114460, ECO:0000269|PubMed:18631454, ECO:0000269|PubMed:19811284, ECO:0000269|PubMed:20819940, ECO:0000269|PubMed:27362237, ECO:0000305|PubMed:20123072}

**Tissue Location**

Ubiquitous. Expressed in platelets (PubMed:11154118).

**HMG1L10 Antibody (N-term) Blocking peptide - Protocols**

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

- [Blocking Peptides](#)