10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

HMGB2 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7195c

Product Information

Application	WB, E
Primary Accession	P26583
Other Accession	P52925, P17741, P40673
Reactivity	Human, Rat
Predicted	Bovine, Pig, Rat, Mouse, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	24034
Antigen Region	92-118

Additional Information

Gene ID	3148
Other Names	High mobility group protein B2, High mobility group protein 2, HMG-2, HMGB2, HMG2
Target/Specificity	This HMGB2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 92-118 amino acids from the Central region of human HMGB2.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	HMGB2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

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 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 (PubMed:11909973, PubMed:18413230, PubMed:19522541, PubMed:19965638, PubMed:20123072, PubMed:7797075). 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).

Background

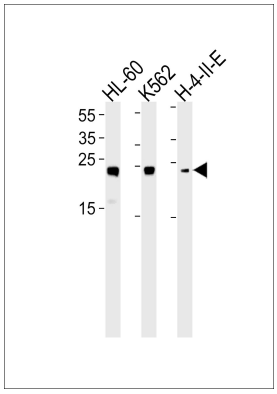
HMGB2 is a member of the non-histone chromosomal high mobility group protein family. The proteins of this family are chromatin-associated and ubiquitously distributed in the nucleus of higher eukaryotic cells. In vitro studies have demonstrated that this protein is able to efficiently bend DNA and form 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.

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)

Images

HMGB2 Antibody (Center) (Cat. #AP7195c) western blot analysis in HL-60,K562,H-4-II-E cell line lysates (35ug/lane).This demonstrates the HMGB2 antibody detected the HMGB2 protein (arrow).



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.