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# HMGB1 Polyclonal antibody

Catalog Number:10829-1-AP Featured Product 288 Publications

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## Basic Information

Catalog Number:
10829-1-AP

Concentration:
800 ug/ml

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG1264

GenBank Accession Number:
BC003378

GeneID (NCBI):
3146

UNIPROT ID:
P09429

Full Name:
high-mobility group box 1

Calculated MW:
25 kDa

Observed MW:
25-30 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB 1:5000-1:50000
IHC 1:50-1:500

## Applications

Tested Applications:
WB, IHC, ELISA

Cited Applications:
WB, IHC, IF, IP, CoIP, ChIP, RIP, ELISA

Species Specificity:
human, mouse, rat

Cited Species:
human, mouse, rat, zebrafish

***Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0***

Positive Controls:

WB : HeLa cells, mouse kidney tissue, RAW 264.7 cells, Jurkat cells, NIH/3T3 cells, C6 cells

IHC : mouse brain tissue, human breast cancer tissue, human normal colon

## Background Information

The HMG (high mobility group) proteins are nonhistone chromosomal proteins that is present in almost all eukaryotic cells, and it functions to stabilize NUCLEOSOME formation and acts as a transcription-factor-like protein that regulates the expression of several genes[PMID: 18160415]. Once injury, infection or other inflammatory stimuli, activated macrophages, mature dendritic cells and natural killer cells can secret HMGB1, which act as a crucial cytokine[PMID: 20163887]. HMGB1 also involved in V(D)J recombination by acting as a cofactor of the RAG complex, stimulating cleavage and RAG protein binding at the 23 bp spacer of conserved recombination signal sequences (RSS)[PMID: 19360789 ]. Act as a Heparin-binding protein that has a role in the extension of neurite-type cytoplasmic processes in developing cells. HMGB1 (high mobility group box 1) modulates gene expression in the nucleus, but certain immune cells secrete HMGB1 as an extracellular Alarmin to signal tissue damage.The nuclear HMGB1 relocalizes to the extracellular milieu in senescent human and mouse cells in culture and in vivo, which stimulated cytokine secretion through TLR-4 signaling (23649808).This antibody is a rabbit polyclonal antibody raised against full length HMGB1 of human origin. HMGB1 was oxidized to Ox-HMGB1 at mild ROS concentrations and finally to Di-HMGB1(58 kDa) at excessive ROS concentrations (PMID: 33461096).

## Notable Publications

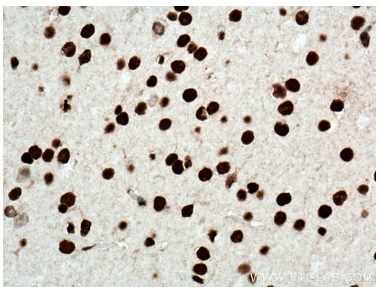
| Author | Pubmed ID | Journal | Application |
|---|---|---|---|
| Lihua Luo | 34593005 | J Nanobiotechnology | WB |
| Xufeng Tao | 25083618 | Transplantation | WB |
| Yuanli Huang | 34594133 | Cancer Manag Res | IHC |

## Storage

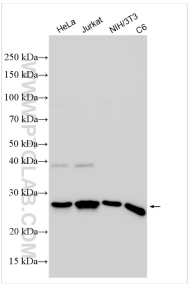
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

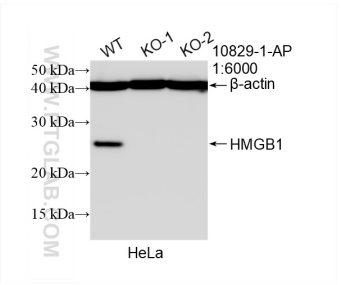
## Selected Validation Data



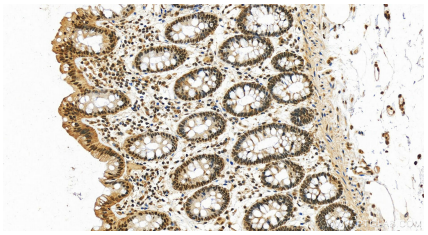
Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 10829-1-AP (HMGB1 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).




Various lysates were subjected to SDS PAGE followed by western blot with 10829-1-AP (HMGB1 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.




WB result of HMGB1 antibody (10829-1-AP; 1:6000; incubated at room temperature for 1.5 hours) with negative control and HMGB1 knockout HeLa cells.



Immunohistochemical analysis of paraffin-embedded human normal colon slide using 10829-1-AP (HMGB1 antibody) at dilution of 1:600 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).