

For Research Use Only

# HMGB1 Recombinant antibody

Catalog Number: 82973-1-RR

Featured Product

1 Publications



## Basic Information

### Catalog Number:

82973-1-RR

### Concentration:

1000 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:

Protein A purification

### CloneNo.:

230182G6

### Recommended Dilutions:

WB: 1:5000-1:50000

IHC: 1:1000-1:4000

IF/ICC: 1:125-1:500

FC (Intra): 0.40 ug per 10<sup>6</sup> cells in a 100 µl suspension

## Applications

### Tested Applications:

WB, IHC, IF/ICC, FC (Intra), ELISA

### Cited Applications:

WB, IHC, IF

### Species Specificity:

human, mouse, rat

### Cited Species:

human

### Positive Controls:

**WB** : L02 cells, HeLa cells, Jurkat cells, HEK-293 cells, K-562 cells, HCT 116 cells, mouse brain tissue, rat brain tissue

**IHC** : human colon tissue, mouse brain tissue

**IF/ICC** : HeLa cells,

**FC (Intra)** : HeLa cells,

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

## 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 secrete 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 relocates to the extracellular milieu in senescent human and mouse cells in culture and in vivo, which stimulated cytokine secretion through TLR-4 signaling (23649808).

## Notable Publications

| Author    | Pubmed ID | Journal  | Application |
|-----------|-----------|----------|-------------|
| Yurong Lu | 39718052  | Placenta | WB,IHC,IF   |

## 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:

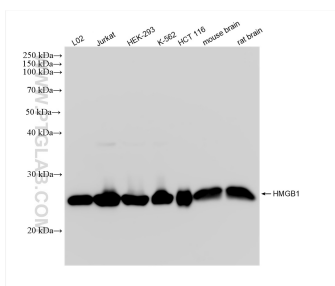
T: 4006900926

E: Proteintech-CN@ptglab.com

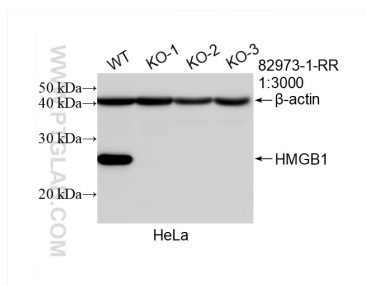
W: ptgcn.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

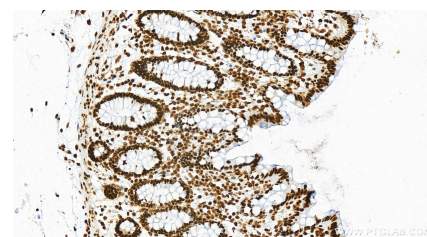
## Selected Validation Data



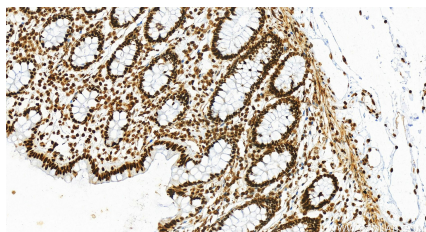
Various lysates were subjected to SDS PAGE followed by western blot with 82973-1-RR (HMGB1 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



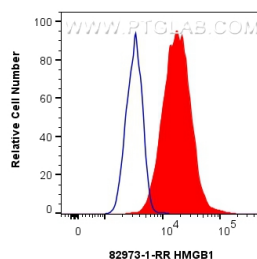
WB result of HMGB1 antibody (82973-1-RR; 1:3000; incubated at room temperature for 1.5 hours) with negative control and HMGB1 knockout HeLa cells.



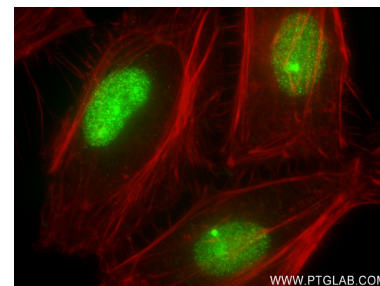
Immunohistochemical analysis of paraffin-embedded human colon tissue slide using 82973-1-RR (HMGB1 antibody) at dilution of 1:2000 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



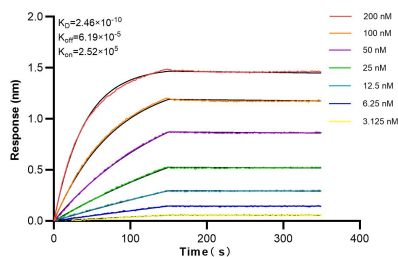
Immunohistochemical analysis of paraffin-embedded human colon tissue slide using 82973-1-RR (HMGB1 antibody) at dilution of 1:2000 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



$1 \times 10^6$  HeLa cells were intracellularly stained with 0.4  $\mu$ g HMGB1 Recombinant antibody (82973-1-RR, Clone:230182G6) and CoraLite<sup>®</sup>488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2) (red), or 0.4  $\mu$ g Isotype Control (blue). Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011).



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using HMGB1 antibody (82973-1-RR, Clone: 230182G6) at dilution of 1:250 and CoraLite<sup>®</sup>488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-Phalloidin (red).



Biolayer interferometry (BLI) kinetic assays of 82973-1-RR against Human HMGB1 were performed. The affinity constant is 0.246 nM.