

For Research Use Only

HMGB1 Recombinant antibody

Catalog Number: 82973-1-RR

Featured Product

1 Publications



Basic Information

| | | |
|--|--|---|
| Catalog Number: 82973-1-RR | GenBank Accession Number: BC003378 | Purification Method: Protein A purification |
| Size: 100ul , Concentration: 1000 ug/ml by Nanodrop; | GeneID (NCBI): 3146 | CloneNo.: 230182G6 |
| Source: Rabbit | UNIPROT ID: P09429 | Recommended Dilutions: WB 1:5000-1:50000 IHC 1:1000-1:4000 IF/ICC 1:125-1:500 |
| Isotype: IgG | Full Name: high-mobility group box 1 | |
| Immunogen Catalog Number: AG1264 | Calculated MW: 25 kDa | |
| | Observed MW: 25-30 kDa | |

Applications

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|--|---|
| Tested Applications: WB, IHC, IF/ICC, FC (Intra), ELISA | 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, |
| Cited Applications: WB, IHC, IF | |
| Species Specificity: human, mouse, rat | |
| Cited Species: human | |
| 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

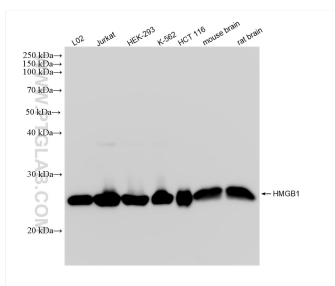
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

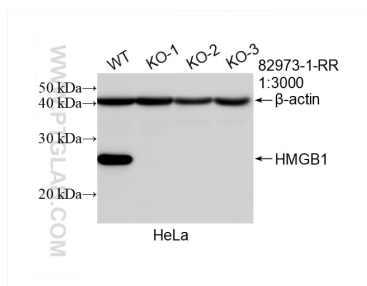
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

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

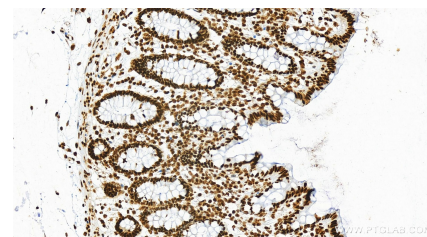
Selected Validation Data



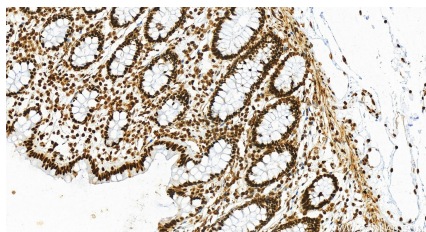
Various lysates were subjected to SDS PAGE followed by western blot with 82973-1-RR (HMGB1 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



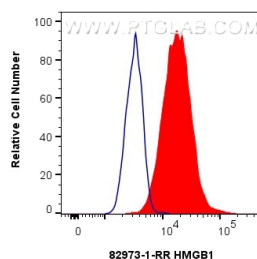
WB result of HMGB1 antibody (82973-1-RR; 1:3000; incubated at room temperature for 1.5 hours) with negative control and HMGB1 knockout HeLa cells.



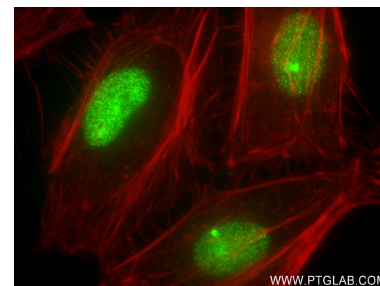
Immunohistochemical analysis of paraffin-embedded human colon tissue slide using 82973-1-RR (HMGB1 antibody) at dilution of 1:2000 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



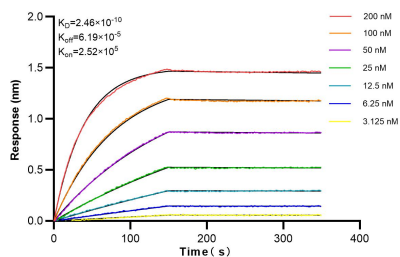
Immunohistochemical analysis of paraffin-embedded human colon tissue slide using 82973-1-RR (HMGB1 antibody) at dilution of 1:2000 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



1×10^6 HeLa cells were intracellularly stained with 0.4 μ g HMGB1 Recombinant antibody (82973-1-RR, Clone:230182G6) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2) (red), or 0.4 μ 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®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.