

For Research Use Only

HMGB1 Recombinant antibody, PBS Only (Capture)

Catalog Number: 82973-1-PBS

Featured Product



Basic Information

Catalog Number: 82973-1-PBS	GenBank Accession Number: BC003378	Purification Method: Protein A purification
Size: 100ug, Concentration: 1mg/ml by Nanodrop;	GeneID (NCBI): 3146	CloneNo.: 230182G6
Source: Rabbit	UNIPROT ID: P09429	
Isotype: IgG	Full Name: high-mobility group box 1	
Immunogen Catalog Number: AG1264	Calculated MW: 25 kDa	
	Observed MW: 25-30 kDa	

Applications

Tested Applications:
WB, IHC, IF/ICC, FC (Intra), Sandwich ELISA, Indirect ELISA

Species Specificity:
human, mouse, rat

Product Information

82973-1-PBS targets HMGB1 as part of a matched antibody pair:

MP00311-1: 82973-1-PBS capture and 82973-3-PBS detection (validated in Sandwich ELISA)

Unconjugated rabbit recombinant monoclonal antibody in PBS only (BSA and azide free) storage buffer at a concentration of 1 mg/mL, ready for conjugation. Created using Proteintech's proprietary in-house recombinant technology. Recombinant production enables unrivalled batch-to-batch consistency, easy scale-up, and future security of supply.

This conjugation ready format makes antibodies ideal for use in many applications including: ELISAs, multiplex assays requiring matched pairs, mass cytometry, and multiplex imaging applications. Antibody use should be optimized by the end user for each application and assay.

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).

Storage

Storage:
Store at -80°C.

Storage Buffer:
PBS Only

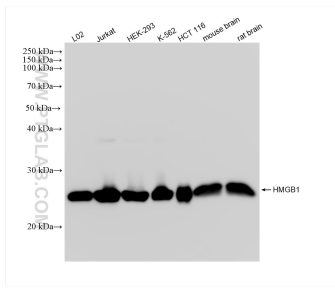
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

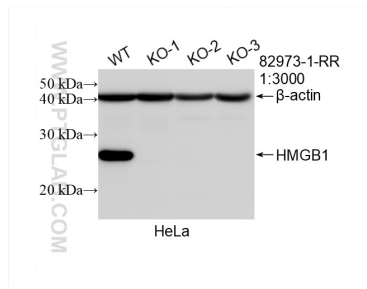
E: proteintech@ptglab.com
W: ptglab.com

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

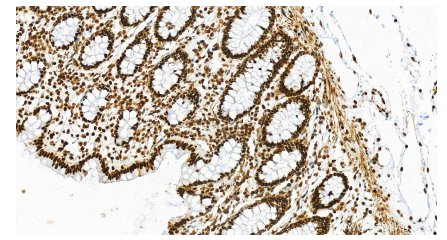
Selected Validation Data



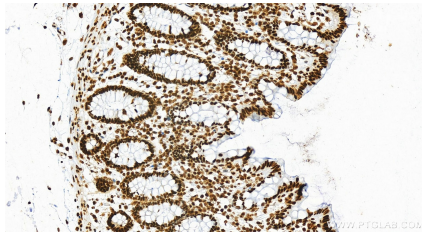
Various lysates were subjected to SDS PAGE followed by western blot with 82973-1-RR (HMGB1 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 82973-1-PBS in a different storage buffer formulation.



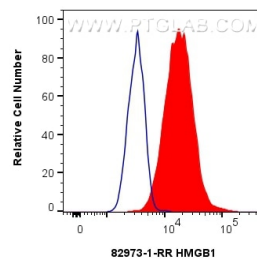
WB result of HMGB1 antibody (82973-1-RR; 1:3000; incubated at room temperature for 1.5 hours) with negative control and HMGB1 knockout HeLa cells. This data was developed using the same antibody clone with 82973-1-PBS in a different storage buffer formulation.



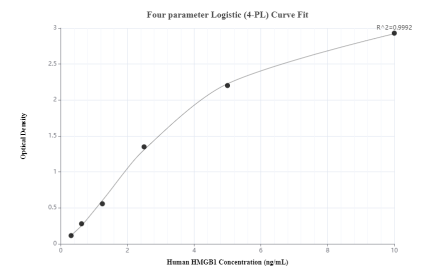
Immunohistochemical analysis of paraffin-embedded human colon tissue slide using 82973-1-RR (HMGB1 antibody) at dilution of 1:2000 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 82973-1-PBS in a different storage buffer formulation.



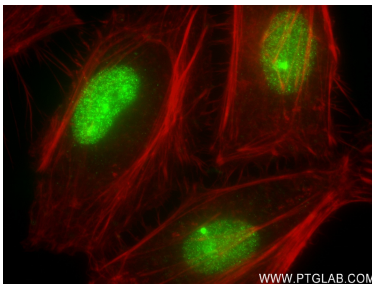
Immunohistochemical analysis of paraffin-embedded human colon tissue slide using 82973-1-RR (HMGB1 antibody) at dilution of 1:2000 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 82973-1-PBS in a different storage buffer formulation.



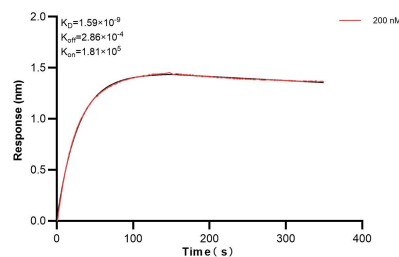
1×10^6 HeLa cells were intracellularly stained with 0.4 ug HMGB1 Recombinant antibody (82973-1-RR, Clone:230182G6) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2) (red), or 0.4 ug Isotype Control (blue). Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011). This data was developed using the same antibody clone with 82973-1-PBS in a different storage buffer formulation.



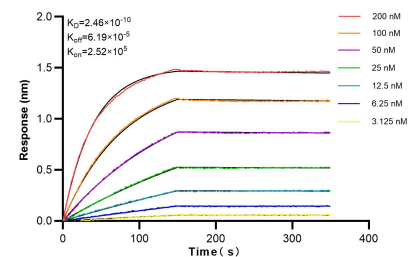
Sandwich ELISA standard curve of MP00311-1, HMGB1 Recombinant Matched Antibody Pair, PBS Only. 82973-1-PBS was coated to a plate as the capture antibody and incubated with serial dilutions of standard Ag1264. 82973-3-PBS was HRP conjugated as the detection antibody. Range: 0.156-10 ng/mL.



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). This data was developed using the same antibody clone with 82973-1-PBS in a different storage buffer formulation.



Bi-layer interferometry (BLI) kinetic assay of 82973-1-PBS against Human HMGB1 was performed. The affinity constant is 1.59 nM.



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