Anti-HMGB1 Antibody

R1309-12

Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IF-Cell, IHC-P, FC
Molecular Wt:	Predicted band size: 25 kDa

Description: Like the histones, HMGB1, also known as high-mobility group protein 1 (HMG-1) is among the most important chromatin proteins. In the nucleus HMGB1 interacts with nucleosomes, transcription factors, and histones. This nuclear protein organizes the DNA and regulates transcription. After binding, HMGB1 bends DNA, which facilitates the binding of other proteins. HMGB1 is secreted by immune cells (like macrophages, monocytes and dendritic cells) through leaderless secretory pathway. Activated macrophages and monocytes secrete HMGB1 as a cytokine mediator of Inflammation. In recent research, HMGB1 has been reported as a novel biomarker for human ovarian cancer.

Immunogen: Synthetic peptide within N-terminal human HMGB1.

Positive control: Wild-type Raw264.7 whole cell lysate, MCF-7 cell lysate, PC12 cell lysate, F9 cell lysate, Hela, mouse spleen tissue.

Subcellular location: Nucleus, Cell membrane, Chromosome, Cytoplasm, Endoplasmic reticulum, Endosome, Membrane, Secreted.

Database links: SwissProt: P09429 Human

Recommended Dilutions:

WB	1:1,000-1:2,000
IF-Cell	1:200-1:500
IHC-P	1:200
FC	1:100

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃ or -80℃. Avoid repeated freeze / thaw cycles.

Purity: Immunogen affinity purified.

Images

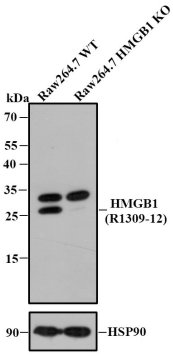

Fig1: All lanes: Western blot analysis of HMGB1 with anti-HMGB1 antibody (R1309-12) at 1/500 dilution.

Lane 1: Wild-type Raw264.7 whole cell lysate.
Lane 2: HMGB1 knockout Raw264.7 whole cell lysate.

R1309-12 was shown to specifically react with HMGB1 in wild-type Raw264.7 cells. No band was observed when HMGB1 knockout sample was tested. Wild-type and HMGB1 knockout samples were subjected to SDS-PAGE. Proteins were transferred to a PVDF membrane and blocked with 5% NFDM in TBST for 1 hour at room temperature. The primary Anti-HMGB1 antibody (R1309-12, 1/500) and Anti-HSP90 antibody (ET1605-56, 1/10,000) were used in 5% BSA at room temperature for 2 hours. Goat Anti-Rabbit IgG H&L (HRP) Secondary Antibody (HA1001) at 1:200,000 dilution was used for 1 hour at room temperature.

Cell lysate was provided by Ubigene Biosciences (Ubigene Biosciences Co., Ltd., Guangzhou, China).

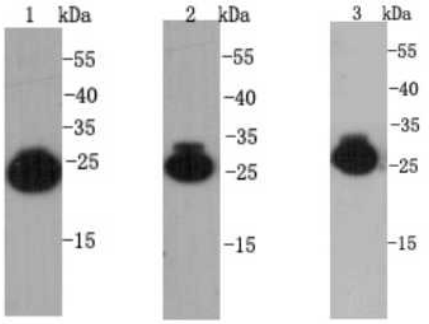

Fig2: Western blot analysis on MCF-7 (1), PC12 (2) and F9 (3) cell lysates using anti-HMGB1 rabbit polyclonal antibodies.

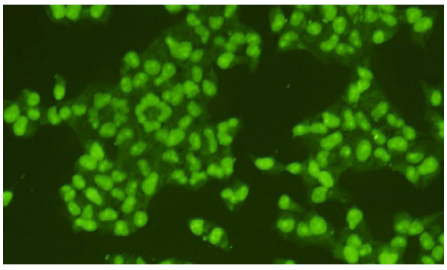

Fig3: Immunofluorescent staining of Hela cells using anti- HMGB1 rabbit polyclonal antibody.

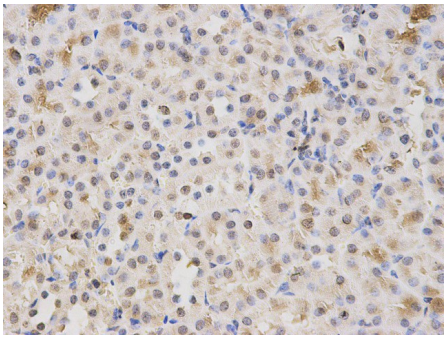

Fig4: Immunohistochemical analysis of paraffin-embedded mouse spleen tissue using anti- HMGB1 rabbit polyclonal antibody.

Background References

1. "Novel role of PKR in inflammasome activation and HMGB1 release." Lu B., Nakamura T., Inouye K., Li J., Tang Y., Lundbaeck P., Valdes-Ferrer S.I., Olofsson P.S., Kalb T., Roth J., Zou Y., Erlandsson-Harris H., Yang H., Ting J.P., Wang H., Andersson U., Antoine D.J., Chavan S.S., Hotamisligil G.S., Tracey K.J. Nature 488:670-674(2012)
2. "The genetic variation of the human HMGB1 gene." Kornblit B., Munthe-Fog L., Petersen S., Madsen H., Vindeloev L., Garred P. Tissue Antigens 70:151-156(2007)