Anti-HMGB1 Antibody

ER0913

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 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 human HMGB1 aa 71-126.

Positive control: Wild-type Raw264.7 whole cell lysate, HepG2 cell lysate, MCF-7 cell lysate, F9 cell lysate, A549 cell lysate, Hela, NIH/3T3, mouse kidney tissue, mouse stomach tissue, mouse brain tissue, human stomach carcinoma tissue, human tonsil tissue,

Subcellular location: Nucleus, Cell membrane, Cytoplasm, Secreted.

Database links: SwissProt: P09429 Human

Recommended Dilutions:

WB	1:500-1:1,000
IF-Cell	1:200
IHC-P	1:200
FC	1:50-1:100

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

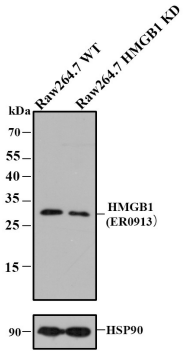

Fig1: All lanes: Western blot analysis of HMGB1 with anti-HMGB1 antibody (ER0913) at 1/500 dilution.

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

ER0913 was shown to specifically react with HMGB1 in Wild-type Raw264.7 cells. Weakened band was observed when HMGB1 knockdown sample was tested. Wild-type and HMGB1 knockdown 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 (ER0913, 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).

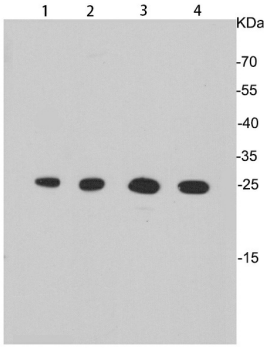

Fig2: Western blot analysis of HMGB1 on different cell lysates using anti- HMGB1 antibody at 1/500 dilution.

Positive control:
Lane 1: HepG2 cell lysate
Lane 2: MCF-7 cell lysate
Lane 3: F9 cell lysate
Lane 4: A549 cell lysate

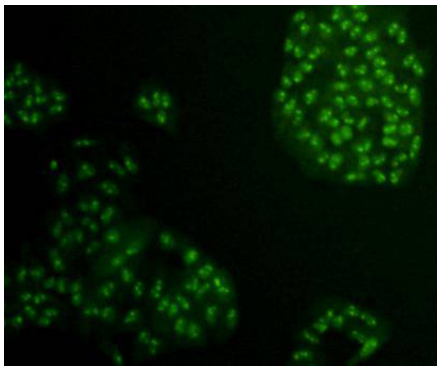

Fig3: ICC staining HMGB1 in Hela cells (green). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

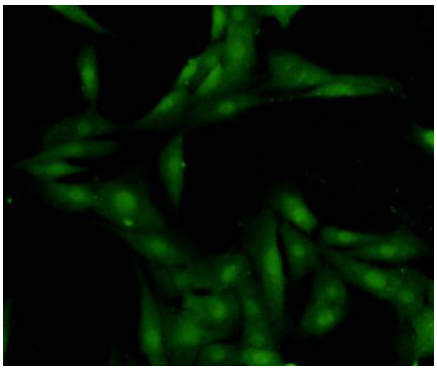

Fig4: ICC staining HMGB1 in NIH/3T3 cells (green). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

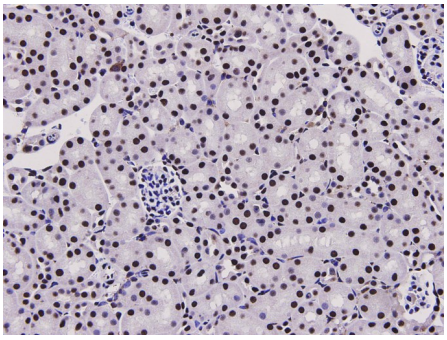

Fig5: Immunohistochemical analysis of paraffin-embedded mouse kidney tissue using anti- HMGB1 antibody. Counter stained with hematoxylin.

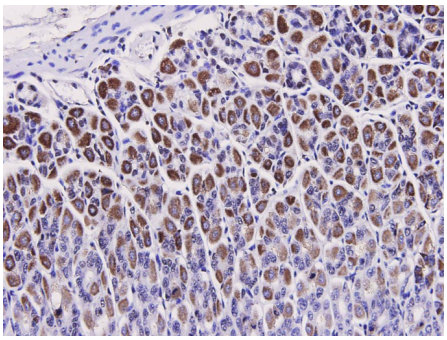

Fig6: Immunohistochemical analysis of paraffin-embedded mouse stomach tissue using anti- HMGB1 antibody. Counter stained with hematoxylin.

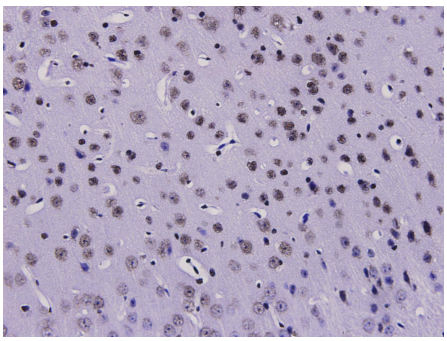

Fig7: Immunohistochemical analysis of paraffin-embedded mouse brain tissue using anti- HMGB1 antibody. Counter stained with hematoxylin.

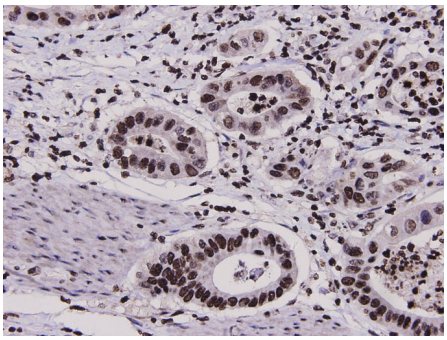

Fig8: Immunohistochemical analysis of paraffin-embedded human stomach carcinoma tissue using anti- HMGB1 antibody. Counter stained with hematoxylin.

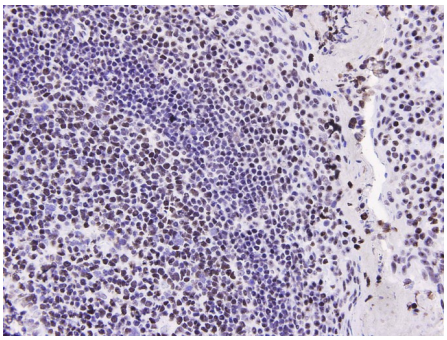

Fig9: Immunohistochemical analysis of paraffin-embedded human tonsil tissue using anti- HMGB1 antibody. Counter stained with hematoxylin.

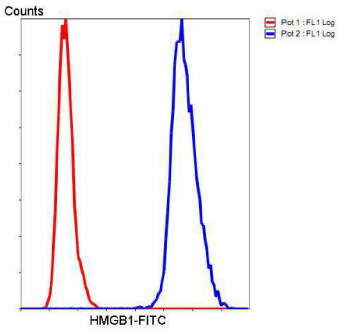

Fig10: Flow cytometric analysis of Hela cells with HMGB1 antibody at 1/50 dilution (blue) compared with an unlabelled control (cells without incubation with primary antibody; red). Goat anti rabbit IgG (FITC) was used as the secondary antibody.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. "The active gene that encodes human high mobility group 1 protein (HMG1) contains introns and maps to chromosome 13." Ferrari S., Finelli P., Rocchi M., Bianchi M.E. Genomics 35:367-371(1995)
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(2006)
3. "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(2011)