Anti-Histone H2A.X Antibody [JM06-42]

ET1705-97

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IF-Tissue, IHC-P, IP
Molecular Wt:	Predicted band size: 15 kDa
Clone number:	JM06-42

Description: Histone H2A.X is a member of the Histone H2A family, which is involved in nucleosomal organization of chromatin. The H2AFX gene is located in close proximity to the Porphobilinogen deaminase (PBG-D) gene in both mouse and human, and maps to chromosome 9 and 11q23, respectively. H2A.X meets from the other members of the H2A family by the presence of a highly conserved C-terminal motif. It is wide phosphorylated in response to ionizing radiation and plays an important role in the recognition and repair of DNA fragments are involved in the heavy chain constant region of cells involved in class switch recombination (CSR), a region-specific DNA reaction that replaces one immunoglobulin heavy chain constant region gene with another. The phosphorylated γ-H2A.X is also thought to firing new grades factors, including Rad50, Rad51 and BRCA1.

Immunogen: Synthetic peptide within N-terminal human Histone H2A.X.

Positive control: Raji cell lysate, MCF-7 cell lysate, human pancreas tissue, mouse testis tissue, rat brain tissue, human stomach carcinoma tissue, mouse pancreas tissue, rat pancreas tissue.

Subcellular location: Nucleus. Chromosome.

Database links: SwissProt: P16104 Human | P27661 Mouse | D3ZXP3 Rat

Recommended Dilutions:

WB	1:500-1:2000
IF-Tissue	1:50-1:200
IHC-P	1:1,000-1:4,000
IP	Use at an assay dependent concentration.

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

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

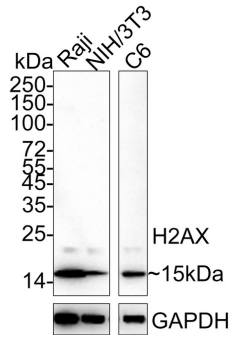

Fig1: Western blot analysis of Histone H2A.X on different lysates with Rabbit anti-Histone H2A.X antibody (ET1705-97) at 1/1,000 dilution.

Lane 1: Raji cell lysate
Lane 2: NIH/3T3 cell lysate
Lane 3: C6 cell lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 15 kDa
Observed band size: 15 kDa

Exposure time: 3 minutes;

15% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ET1705-97) at 1/1,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

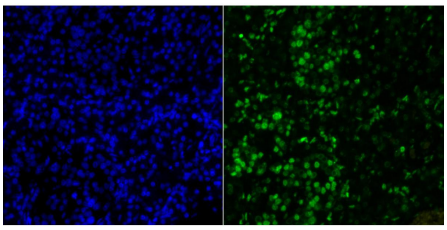

Fig2: Immunofluorescence staining of paraffin- embedded human pancreas tissue using anti-Histone H2A.X antibody.The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 10% negative goat serum for 1 hour at room temperature, washed with PBS, and then probed with ET1705-97 at 1/50 dilution for 10 hours at 4℃ and detected using Alexa Fluor® 488 conjugate-Goat anti-Rabbit IgG (H+L) Secondary Antibody at a dilution of 1:500 for 1 hour at room temperature.

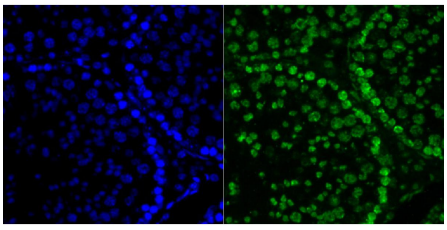

Fig3: Immunofluorescence staining of paraffin- embedded mouse testis tissue using anti-Histone H2A.X antibody.The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 10% negative goat serum for 1 hour at room temperature, washed with PBS, and then probed with ET1705-97 at 1/50 dilution for 10 hours at 4℃ and detected using Alexa Fluor® 488 conjugate-Goat anti-Rabbit IgG (H+L) Secondary Antibody at a dilution of 1:500 for 1 hour at room temperature.

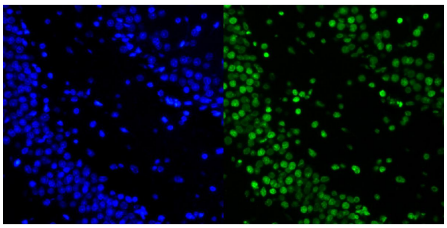

Fig4: Immunofluorescence staining of paraffin- embedded rat brain tissue using anti-Histone H2A.X antibody.The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 10% negative goat serum for 1 hour at room temperature, washed with PBS, and then probed with ET1705-97 at 1/50 dilution for 10 hours at 4℃ and detected using Alexa Fluor® 488 conjugate-Goat anti-Rabbit IgG (H+L) Secondary Antibody at a dilution of 1:500 for 1 hour at room temperature.

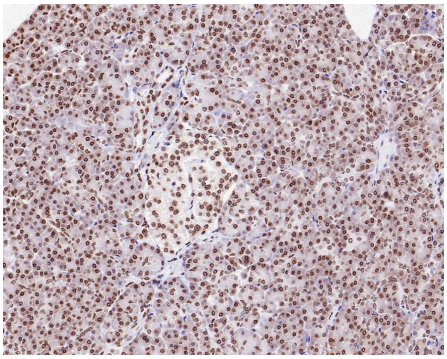

Fig5: Immunohistochemical analysis of paraffin-embedded human pancreas tissue with Rabbit anti-Histone H2A.X antibody (ET1705-97) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) (high pressure) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1705-97) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

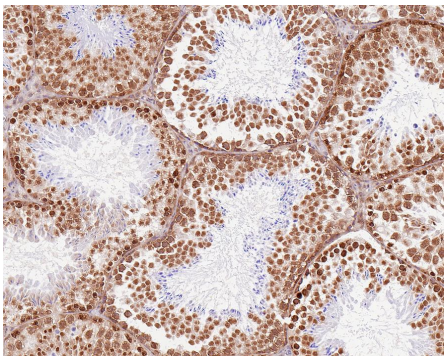

Fig6: Immunohistochemical analysis of paraffin-embedded mouse testis tissue with Rabbit anti-Histone H2A.X antibody (ET1705-97) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) (high pressure) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1705-97) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

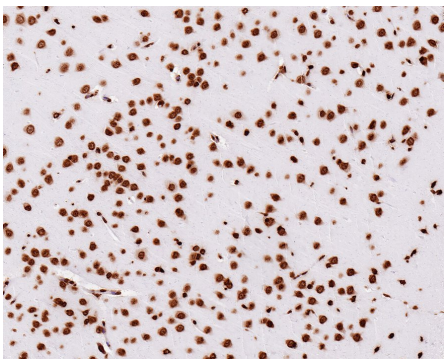

Fig7: Immunohistochemical analysis of paraffin-embedded rat brain tissue with Rabbit anti-Histone H2A.X antibody (ET1705-97) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) (high pressure) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1705-97) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

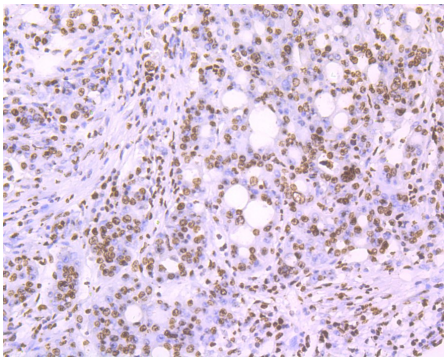

Fig8: Immunohistochemical analysis of paraffin-embedded human stomach carcinoma tissue with Rabbit anti-Histone H2A.X antibody (ET1705-97) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) (high pressure) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1705-97) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

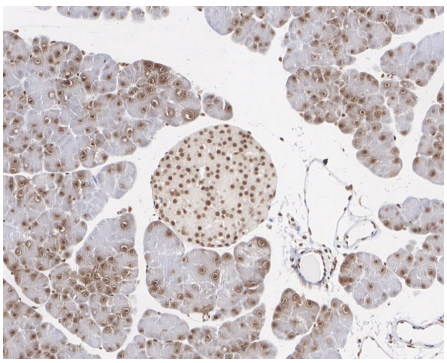

Fig9: Immunohistochemical analysis of paraffin-embedded mouse pancreas tissue with Rabbit anti-Histone H2A.X antibody (ET1705-97) at 1/4,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) (high pressure) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1705-97) at 1/4,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

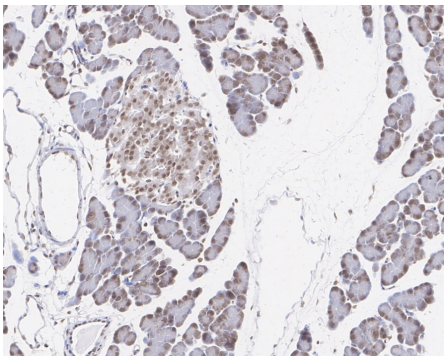

Fig10: Immunohistochemical analysis of paraffin-embedded rat pancreas tissue with Rabbit anti-Histone H2A.X antibody (ET1705-97) at 1/4,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) (high pressure) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1705-97) at 1/4,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

Background References

1. Bezine E et al. Cell resistance to the Cytolethal Distending Toxin involves an association of DNA repair mechanisms. Sci Rep 6:36022 (2016)
2. Xiong J et al. Stemness factor Sall4 is required for DNA damage response in embryonic stem cells. J Cell Biol 208:513-20 (2015).