

Product datasheet for **TA337175**

Histone H2A.X (H2AFX) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ICC/IF, IHC, Simple Western, WB
Recommended Dilution:	Immunohistochemistry, Simple Western, Immunocytochemistry/ Immunofluorescence, Western Blot: 4-7ug/ml~, Immunohistochemistry-Paraffin: 5-10ug/ml
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	A portion of amino acids 50-110 of human Histone H2A.x was used as the immunogen.
Formulation:	PBS containing 0.05% BSA, 0.05% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Protein A purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	H2A histone family member X
Database Link:	NP_002096 Entrez Gene 3014 Human P16104



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Background:

H2A.x is a human histone H2A isoprotein containing 143 amino acid residues. H2A.x is considered a basal histone, being synthesized in G1 as well as in S-phase, and its mRNA contains polyA addition motifs and a polyA tail along with the conserved stem-loop and U7 binding sequences involved in the processing and stability of replication type histone mRNAs. There are two forms of H2A.x mRNA, one about 1600 bases long and contains polyA; the other about 575 bases long, lacking polyA. The short form behaves as a replication type histone mRNA, while the longer behaves as a basal type histone mRNA. H2A.x becomes extensively phosphorylated within 1-3 minutes of DNA damage and forms foci at break sites. It is required for checkpoint-mediated arrest of cell cycle progression in response to low doses of ionizing radiation and for efficient repair of DNA double strand breaks (DSBs) specifically when modified by C-terminal phosphorylation. It maps to the 11q23.2-q23.3 region of the human chromosome. Histone H2A.x contributes to histone-formation and therefore the structure of DNA. Histone H2A variant H2A.x specifically regulates the interaction of MDC1 (mediator of DNA damage checkpoint protein 1), a DNA repair protein to the sites of DNA damage.

Synonyms:

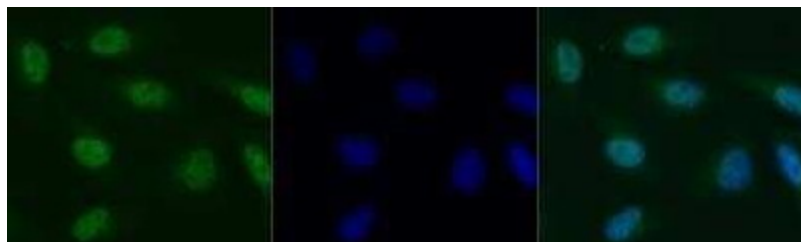
H2A; H2A.X; H2AX; X

Protein Families:

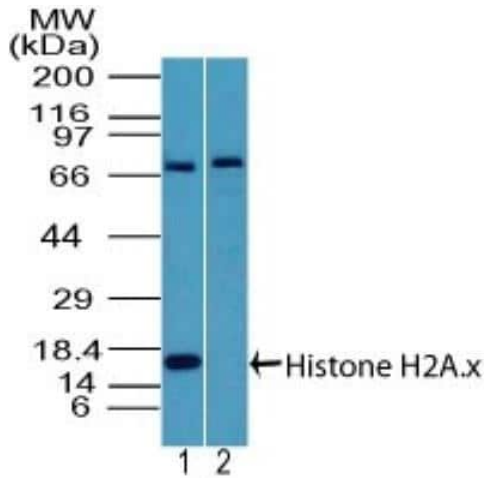
Druggable Genome

Protein Pathways:

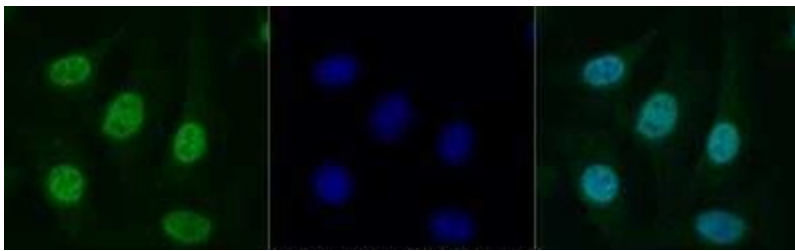
Systemic lupus erythematosus

Product images:

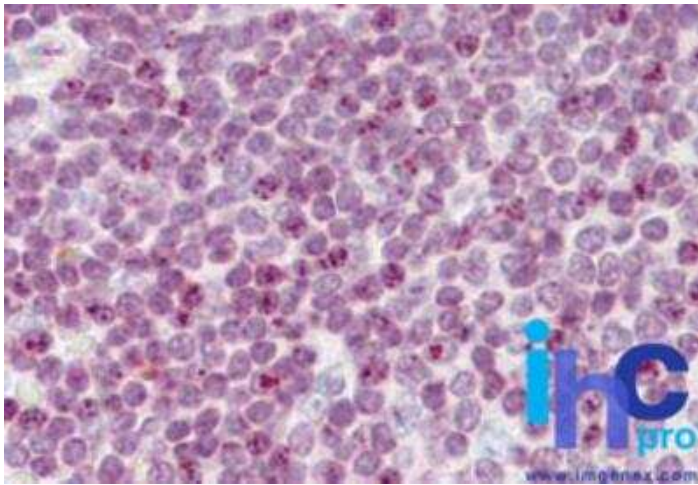
Immunocytochemistry/Immunofluorescence: H2AX Antibody TA337175 - HeLa cells were fixed for 10 minutes using 10% formalin and then permeabilized for 5 minutes using 1X PBS + 0.5% Triton-X100. The cells were incubated with anti-H2AX at 5 ug/ml overnight at 4C and detected with an anti-rabbit Dylight 488 (Green) at a 1:500 dilution. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 40X objective.



Western Blot: H2AX Antibody TA337175 - Analysis of MOLT4 lysate in the 1) absence and 2) presence of immunizing peptide using Histone H2A.x antibody at 4 ug/ml. Goat anti-rabbit Ig HRP secondary antibody and PicoTect ECL substrate solution were used for this test.



Immunocytochemistry/Immunofluorescence: H2AX Antibody TA337175 - NIH3T3 cells were fixed for 10 minutes using 10% formalin and then permeabilized for 5 minutes using 1X PBS + 0.5% Triton-X100. The cells were incubated with anti-H2AX at 5 ug/ml overnight at 4C and detected with an anti-rabbit Dylight 488 (Green) at a 1:500 dilution. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 40X objective.



Immunohistochemistry-Paraffin: H2AX Antibody TA337175 - Formalin-fixed, paraffin-embedded human spleen stained with Histone H2A.x antibody at 10 ug/ml.