



p-Histone H2A.X (Ser139-7G9-H4): sc-517558

BACKGROUND

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 11q23.3, respectively. H2A.X differs from the other members of the H2A family by the presence of a highly conserved C-terminal motif. It is rapidly phosphorylated in response to ionizing radiation and plays an important role in the recognition and repair of DNA double stranded breaks. The phosphorylated form of H2A.X, designated γ -H2A.X, forms nuclear foci at 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 initiate subsequent repair factors, including Rad50, Rad51 and BRCA1.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: H2AFX (human) mapping to 11q23.3; H2afx (mouse) mapping to 9 A5.2.

SOURCE

p-Histone H2A.X (Ser139-7G9-H4) is a mouse monoclonal antibody raised against Ser 139 phosphorylated Histone H2A.X of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

p-Histone H2A.X (Ser139-7G9-H4) is recommended for detection of Ser 139 phosphorylated Histone H2A.X of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for Histone H2A.X siRNA (h): sc-62464, Histone H2A.X siRNA (m): sc-62465, Histone H2A.X shRNA Plasmid (h): sc-62464-SH, Histone H2A.X shRNA Plasmid (m): sc-62465-SH, Histone H2A.X shRNA (h) Lentiviral Particles: sc-62464-V and Histone H2A.X shRNA (m) Lentiviral Particles: sc-62465-V.

Molecular Weight of p-Histone H2A.X: 15 kDa.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.