# Phospho-Histone H2AX (S139) Recombinant Monoclonal Antibody

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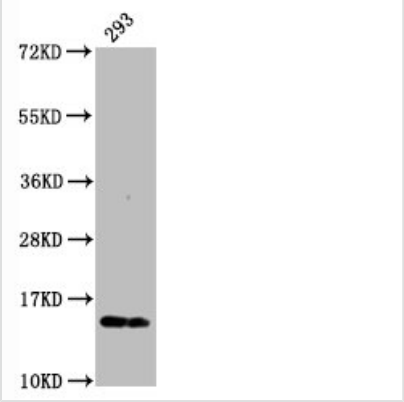
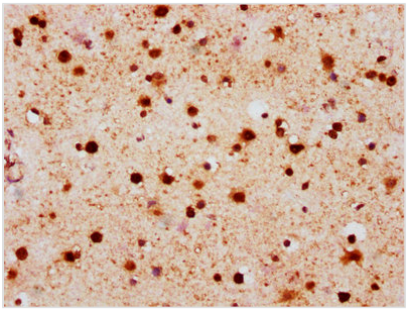
| **Product Code** | CSB-RA010097A139phHU |
| **Abbreviation** | Histone H2AX |
| **Storage** | Upon receipt, store at -20°C or -80°C. Avoid repeated freeze. |
| **Uniprot No.** | P16104 |
| **Immunogen** | A synthesized peptide |
| **Species Reactivity** | Human |
| **Tested Applications** | ELISA, WB, IHC; Recommended dilution: WB:1:500-1:5000, IHC:1:50-1:200 |
| **Relevance** | Variant histone H2A which replaces conventional H2A in a subset of nucleosomes. Nucleosomes wrap and compact DNA into chromatin, limiting DNA accessibility to the cellular machineries which require DNA as a template. Histones thereby play a central role in transcription regulation, DNA repair, DNA replication and chromosomal stability. DNA accessibility is regulated via a complex set of post-translational modifications of histones, also called histone code, and nucleosome remodeling. 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. |
| **Form** | Liquid |
| **Conjugate** | Non-conjugated |
| **Storage Buffer** | Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. |
| **Purification Method** | Affinity-chromatography |
| **Isotype** | Rabbit IgG |
| **Clonality** | Monoclonal |
| **Alias** | Histone H2AX, H2a/x, Histone H2A.X, H2AFX, H2AX |
| **Immunogen Species** | Homo sapiens (Human) |
| **Research Area** | Epigenetics and Nuclear Signaling |
| **Gene Names** | H2AFX |
| **Clone No.** | 1F10 |
| **Image** | |




Western Blot
Positive WB detected in:293 whole cell lysate
All lanes:Phospho-Histone H2AX (S139) antibody at 0.23μg/ml
Secondary
Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 15 KDa
Observed band size: 15 KDa



IHC image of CSB-RA010097A139phHU diluted at 1:100 and staining in paraffin-embedded human brain tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a biotinylated secondary antibody and visualized using an HRP conjugated SP system.

## Description

The synthesized DNA sequence corresponding to the phospho-Histone H2AX (S139) monoclonal antibody was cloned into the plasmid and then transfected into the cell line for expression. The monoclonal antibody against phospho-Histone H2AX (S139) was generated from the animals immunized by phospho-peptide containing human Histone H2AX S139 site. The product was purified through the affinity-chromatography method and obtained the phospho-Histone H2AX (S139) recombinant monoclonal antibody. This phospho-Histone H2AX (S139) recombinant antibody is a rabbit IgG and has been tested in scientific applications, including ELISA, WB, and IHC. It only recognizes phosphorylated serine 139 of human H2AX.

The S139 phosphorylated H2AX, also termed γH2AX, is a sensitive marker for DNA double-strand breaks (DSBs) and is responsible for the recruitment of cell cycle checkpoint and DNA repair factors to the damaged site.