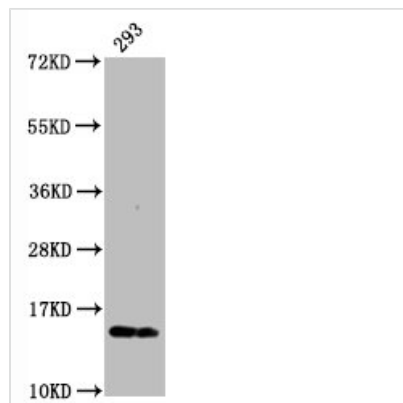




# Phospho-Histone H2AX (S139) Antibody

<b>Product Code</b>	CSB-RA010097A139phHU
<b>Abbreviation</b>	Histone H2AX
<b>Storage</b>	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
<b>Uniprot No.</b>	P16104
<b>Immunogen</b>	A synthesized peptide
<b>Species Reactivity</b>	Human
<b>Tested Applications</b>	ELISA, WB, IHC; Recommended dilution: WB:1:500-1:5000, IHC:1:50-1:200
<b>Relevance</b>	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.
<b>Form</b>	Liquid
<b>Conjugate</b>	Non-conjugated
<b>Storage Buffer</b>	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
<b>Purification Method</b>	Affinity-chromatography
<b>Isotype</b>	Rabbit IgG
<b>Clonality</b>	Monoclonal
<b>Alias</b>	Histone H2AX, H2a/x, Histone H2A.X, H2AFX, H2AX
<b>Immunogen Species</b>	Homo sapiens (Human)
<b>Research Area</b>	Epigenetics and Nuclear Signaling
<b>Gene Names</b>	H2AFX
<b>Accession NO.</b>	1F10
<b>Image</b>	



#### Western Blot

Positive WB detected in:293 whole cell lysate

All lanes:Phospho-Histone H2AX (S139)

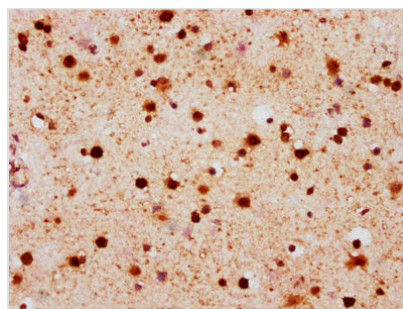
antibody at 0.23μg/ml

#### 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 Bond<sup>TM</sup> 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  $\gamma$ H2AX, 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.