

## Histone H2A.X (Ser139) Blocking Peptide

Synthetic peptide

Catalog # BP20703b

### Specification

---

#### Histone H2A.X (Ser139) Blocking Peptide - Product Information

Primary Accession [P16104](#)

#### Histone H2A.X (Ser139) Blocking Peptide - Additional Information

Gene ID 3014

#### Other Names

Histone H2AX, H2a/x, Histone H2AX, H2AFX, H2AX

#### Target/Specificity

The synthetic peptide sequence is selected from aa 134-143 of HUMAN H2AFX

#### Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

#### Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

#### Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

#### Histone H2A.X (Ser139) Blocking Peptide - Protein Information

Name H2AX ([HGNC:4739](#))

#### Function

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.

#### Cellular Location

Nucleus. Chromosome

#### Histone H2A.X (Ser139) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

### **Histone H2A.X (Ser139) Blocking Peptide - Images**

### **Histone H2A.X (Ser139) Blocking Peptide - Background**

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.

### **Histone H2A.X (Ser139) Blocking Peptide - References**

Mannironi C., et al. Nucleic Acids Res. 17:9113-9126(1989).  
Ebert L., et al. Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.  
Rogakou E.P., et al. J. Biol. Chem. 273:5858-5868(1998).  
Rogakou E.P., et al. J. Cell Biol. 146:905-916(1999).  
Paull T.T., et al. Curr. Biol. 10:886-895(2000).