

Phospho-Histone H3.1-S10 Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AE1016d

Specification

Phospho-Histone H3.1-S10 Antibody - Product Information

Application	WB, IHC, IF
Primary Accession	P68431
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Concentration	1mg/ml
Isotype	Rabbit IgG
Calculated MW	15404

Phospho-Histone H3.1-S10 Antibody - Additional Information

Gene ID 8350;8351;8352;8353;8354;8355;8356;8357;8358;8968

Other Names

Histone H31, Histone H3/a, Histone H3/b, Histone H3/c, Histone H3/d, Histone H3/f, Histone H3/h, Histone H3/i, Histone H3/j, Histone H3/k, Histone H3/l, HIST1H3A, H3FA

Target/Specificity

The antibody was affinity-purified from rabbit antiserum using epitope-specific phosphopeptide column, and the antibody against non-phosphopeptide was removed using non-phosphopeptide column corresponding to the phosphorylation site.

Dilution

WB~~1:500~1:1000
IHC~~1:50~1:100
IF~~1:100~200

Format

affinity Purified IgG, in PBS, 0.02% sodium azide and 50% glycerol.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Phospho-Histone H3.1-S10 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Phospho-Histone H3.1-S10 Antibody - Protein Information

Name H3C1 ([HGNC:4766](#))

Synonyms H3FA, HIST1H3A

Function

Core component of nucleosome. 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.

Cellular Location

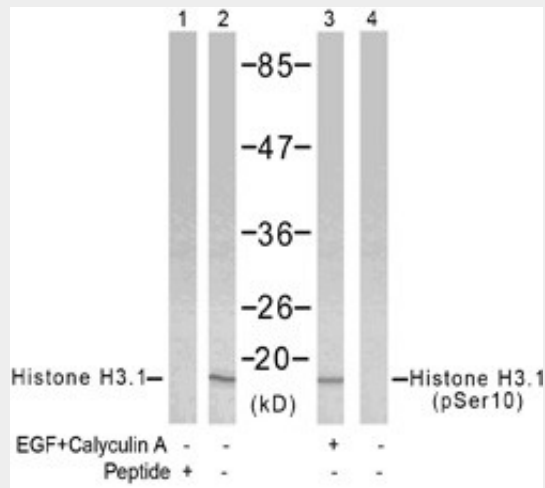
Nucleus. Chromosome.

Phospho-Histone H3.1-S10 Antibody - Protocols

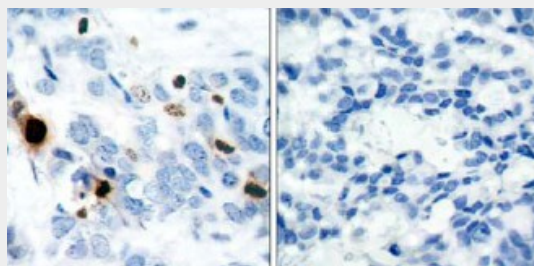
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

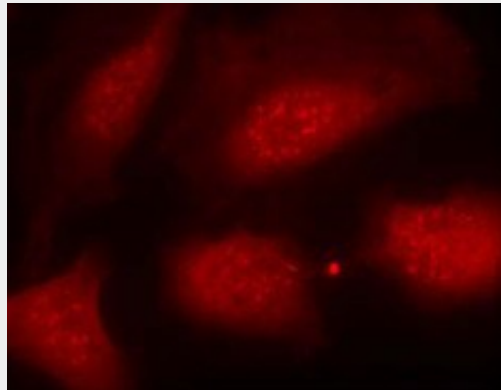
Phospho-Histone H3.1-S10 Antibody - Images



Western blot analysis of extract from HeLa cells using Histone H3.1 Antibody (S10) (#AE1016c, Lane 1 and 2) and Phospho-Histone H3.1-S10 Antibody (#AE1016d, Lane 3 and 4).



Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using Phospho-Histone H3.1-S10 Antibody (#AE1016d)(left) or the same antibody preincubated with blocking peptide(right).



Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear dot staining using Phospho-Histone H3.1-S10 Antibody (#AE1016d).

Phospho-Histone H3.1-S10 Antibody - Background

Histones are basic nuclear proteins that are responsible for the nucleosome structure of the chromosomal fiber in eukaryotes. This structure consists of approximately 146 bp of DNA wrapped around a nucleosome, an octamer composed of pairs of each of the four core histones (H2A, H2B, H3, and H4). The chromatin fiber is further compacted through the interaction of a linker histone, H1, with the DNA between the nucleosomes to form higher order chromatin structures. This gene is intronless and encodes a member of the histone H3 family. Transcripts from this gene lack polyA tails; instead, they contain a palindromic termination element. This gene is found in the large histone gene cluster on chromosome 6p22-p21.3.

Phospho-Histone H3.1-S10 Antibody - References

PHF8 activates transcription of rRNA genes through H3K4me3 binding and H3K9me1/2 demethylation. Feng W, et al. *Nat Struct Mol Biol*, 2010 Apr. PMID 20208542.
Nucleosome formation activity of human somatic nuclear autoantigenic sperm protein (sNASP). Osakabe A, et al. *J Biol Chem*, 2010 Apr 16. PMID 20167597.
Structural biology of human H3K9 methyltransferases. Wu H, et al. *PLoS One*, 2010 Jan 11. PMID 20084102.
Molecular functions of the histone acetyltransferase chaperone complex Rtt109-Vps75. Berndsen CE, et al. *Nat Struct Mol Biol*, 2008 Sep. PMID 19172748.
Np95 is a histone-binding protein endowed with ubiquitin ligase activity. Citterio E, et al. *Mol Cell Biol*, 2004 Mar. PMID 14993289.