

**Histone H3.1 Antibody (S10)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AE1016c**

**Specification**

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**Histone H3.1 Antibody (S10) - Product Information**

Application	WB, IF
Primary Accession	<a href="#">P68431</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Concentration	1mg/ml
Isotype	Rabbit IgG
Calculated MW	15404

**Histone H3.1 Antibody (S10) - 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 by affinity-chromatography using epitope-specific immunogen.

**Dilution**

WB~~1:500~1:1000  
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**

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

**Histone H3.1 Antibody (S10) - 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

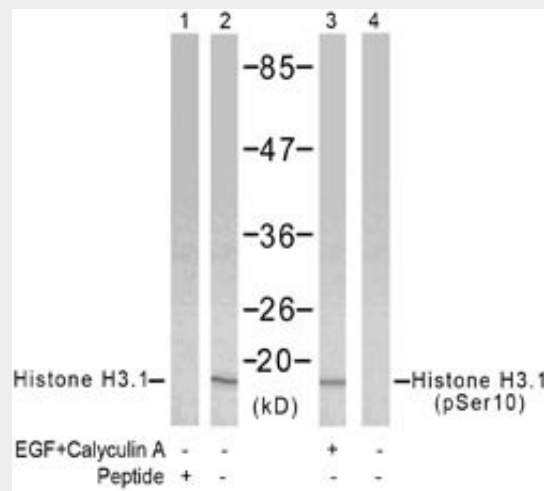
Nucleus. Chromosome.

### Histone H3.1 Antibody (S10) - Protocols

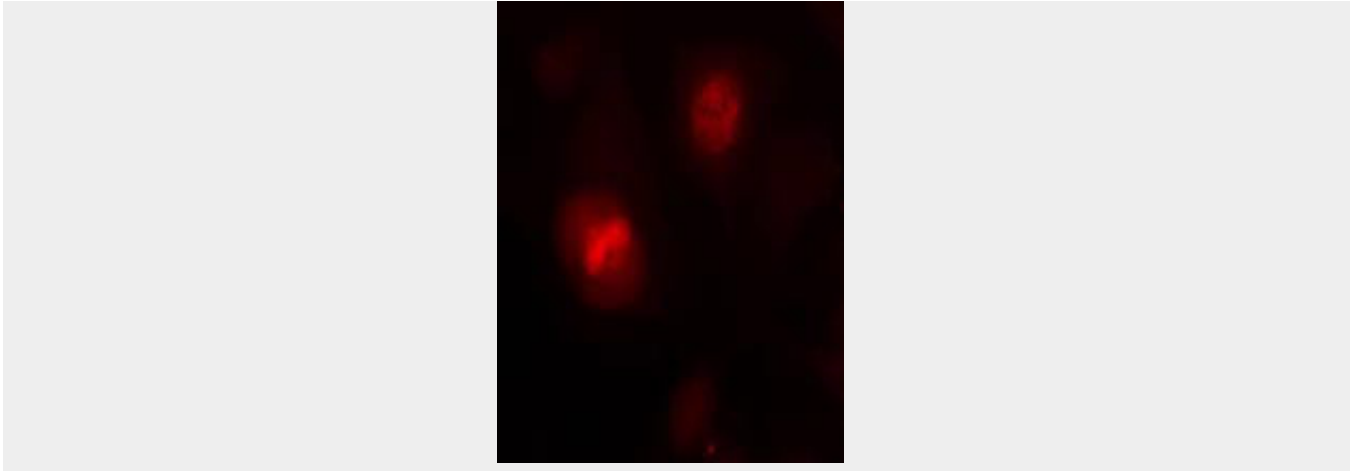
Provided below are standard protocols that you may find useful for product applications.

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

### Histone H3.1 Antibody (S10) - 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).



Immunofluorescence staining of methanol-fixed HeLa cells using Histone H3.1 Antibody (S10) (#AE1016c, Red).

### **Histone H3.1 Antibody (S10) - 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.

### **Histone H3.1 Antibody (S10) - 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.