

## ABfinity™ Histone H3 [pS10] Recombinant Rabbit Oligoclonal Antibody

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Rev. 1.00

Catalog Number: 710282

Store at 2°C to 8°C (short-term), or -20°C (long-term)

**Clonality:** Oligoclonal  
**Concentration:** 0.5 mg/mL  
**Quantity:** 100 µg  
**Volume:** 200 µL

**Host/Class:** Rabbit IgG  
**Reactivity:** Human Histone H3 [pS10]  
**Predicted Reactivity:** Human

### Product Description

Histone H3 is one of four core histone proteins (H2A, H2B, H3 and H4) forming the nucleosomes that serve as the basic unit of chromatin in eukaryotic cells. The amino-terminal tails of core histones undergo post-translational modifications that have a direct effect on the accessibility of chromatin to transcription factors, thus playing an important role in transcription. Phosphorylation at Ser<sup>10</sup>, Ser<sup>28</sup> and Thr<sup>11</sup> of histone H3 is tightly correlated with chromosome condensation during mitosis and meiosis. This antibody specifically recognizes histone H3 protein phosphorylated at Ser<sup>10</sup>.

### Product Specifications

**Immunogen:** Phosopeptide corresponding to amino acids 4–16 of human Histone H3 [pS10]  
**Alternate Names:** HIST1H3A  
**Apparent MW:** 17 kDa  
**Gene ID:** 126961  
**Protein Accession No.:** P68431  
**Sequence Identity:** Human  
**Sequence Homology:** Mouse, Rat, Monkey, Rabbit  
**Clone/PAD:** 9HCLC  
**Lot:** See product label

### Product Applications

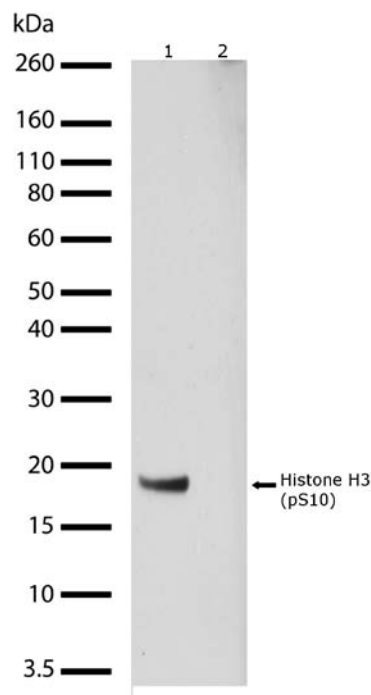
Application	Species	Test Material	Concentration
Western blotting	Human	HeLa cells	1–2 µg/mL
Indirect ELISA	Human	Phosopeptide	1.5 × 10 <sup>-4</sup> to 3 µg/mL
Immunocytochemistry	Human	HeLa cells	1 µg/mL
ChIP	Human	HeLa chromatin	2 µg/10 <sup>-6</sup> cells

### Stability

When stored as instructed, expires one year from date of receipt unless otherwise indicated on product label.

### Storage and Handling

Store the antibody at 2°C to 8°C for up to 1 month, -20°C for long storage. Avoid repeated freezing and thawing.



**Figure 1** Western blot analysis of ABfinity™ Histone H3 [pS10] Recombinant Rabbit Oligoclonal Antibody (Cat. no. 710282).

Western blot analysis was performed on whole cell extracts from HeLa cells treated with Calyculin A. Endogenous levels of phosphorylated Histone H3 [pS10] was detected at ~17 kDa using ABfinity™ Histone H3 [pS10] Recombinant Rabbit Oligoclonal Antibody at a concentration of 2 µg/mL (**lane 1**). To confirm specificity, competition was performed by preincubation with phosopeptide to inhibit antibody binding (**lane 2**). The blot was developed using enhanced chemiluminescence (ECL) method.

### Storage Buffer

Phosphate buffered saline (PBS) with 0.09% sodium azide.

**Caution:** Sodium azide is extremely toxic and may react with lead and copper plumbing to form highly explosive metal azides. Properly dispose of solutions containing sodium azide. Read the Safety Data Sheets (SDSs) and follow the handling instructions. Wear appropriate protective eyewear, clothing, and gloves. SDSs are available at [www.lifetechnologies.com/support](http://www.lifetechnologies.com/support).

For research use only. Not for use in diagnostic procedures.

Manufacturing Site • 7335 Executive Way • Frederick • MD 21704 • E-mail: [techsupport@lifetech.com](mailto:techsupport@lifetech.com)

## Product Documentation

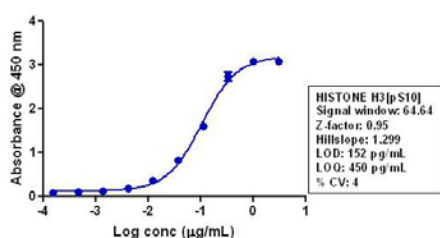
To obtain a Certificate of Analysis or SDS, visit [www.lifetechnologies.com/support](http://www.lifetechnologies.com/support).

## Related Products

Product Name	Quantity	Catalog No.
iBlot® Dry Blotting System	1 unit	IB1001
WesternBreeze® Chromogenic Kit Anti-Rabbit	1 kit	WB7105
WesternBreeze® Chemiluminescent Kit, Anti-Rabbit	1 kit	WB7106

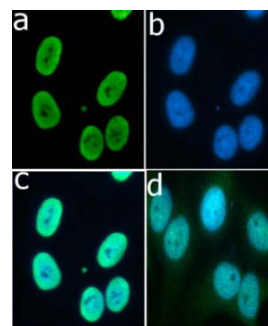
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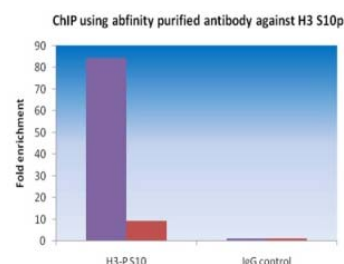
**Figure 2** Indirect ELISA of ABfinity™ Histone H3 [pS10] Recombinant Rabbit Oligoclonal Antibody (Cat. no. 710282).

Indirect ELISA was performed using various dilutions of ABfinity™ Histone H3 [pS10] Recombinant Rabbit Oligoclonal Antibody to detect HisH3pS10 peptide coated onto the plate. A non-linear regression analysis was performed (4 PL), and LOD and LOQ for the antibody was determined.



**Figure 3** Immunocytochemistry analysis of ABfinity™ Histone H3 [pS10] Recombinant Rabbit Oligoclonal Antibody (Cat. no. 710282).

Immunocytochemistry analysis of serum starved HeLa cells stained with ABfinity™ Histone H3 [pS10] Recombinant Rabbit Oligoclonal Antibody, using a: Alexa Fluor® 488 goat anti-rabbit as a secondary antibody (green). b: DAPI stained HeLa nuclei (blue). c: Composite image of cells showing nuclear localization of phosphorylated Histone H3 [pS10]. d: Composite image of cells showing inhibition of antibody binding after competition with the phosphorylated peptide.



**Figure 4** ChIP qPCR analysis of ABfinity™ Histone H3 [pS10] Recombinant Rabbit Oligoclonal Antibody (Cat. no. 710282).

ChIP was performed on HeLa chromatin using ABfinity™ Histone H3 [pS10] Recombinant Rabbit Oligoclonal Antibody. Real-time PCR was performed for cFOS (positive locus) and SAT2 (negative locus) targets using an isotype antibody as a negative control. Data are presented as fold enrichments of the ChIP antibody signal versus the negative control IgG using the comparative CT method.

## Explanation of symbols

Symbol	Description	Symbol	Description	Symbol	Description
	Manufacturer		Catalog number		Batch code
	Use by		Temperature limitation		
	Consult instructions for use		Caution, consult accompanying documents		

## Limited Use Label License No. 327: Recombinant Antibody Technology

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