

For Research Use Only

# Histone H3 Recombinant antibody

Catalog Number: 81984-2-RR



## Basic Information

|   |  |  |
|---|--|--|
| <b>Catalog Number:</b><br>81984-2-RR                              | <b>GenBank Accession Number:</b><br>BC015544 | <b>Purification Method:</b><br>Protein A purification                    |
| <b>Size:</b><br>100ul , Concentration: 1000 µg/ml by<br>Nanodrop; | <b>GeneID (NCBI):</b><br>333932              | <b>CloneNo.:</b><br>241079B2   |
| <b>Source:</b><br>Rabbit  | <b>UNIPROT ID:</b><br>Q71DI3                 | <b>Recommended Dilutions:</b><br>WB 1:5000-1:50000<br>IF/ICC 1:200-1:800 |
| <b>Isotype:</b><br>IgG  | <b>Full Name:</b><br>histone cluster 2, H3a  |  |
| <b>Immunogen Catalog Number:</b><br>AG10644                       | <b>Calculated MW:</b><br>136 aa, 15 kDa      |  |
|   | <b>Observed MW:</b><br>15 kDa                |  |

## Applications

**Tested Applications:**  
WB, IF/ICC, FC (Intra), ELISA

**Species Specificity:**  
human, mouse, rat

**Positive Controls:**

**WB :** HeLa cells, A549 cells, mouse brain tissue, mouse kidney tissue, mouse skeletal muscle tissue, rat brain tissue

**IF/ICC :** HeLa cells,

## Background Information

Histone-H3, histone cluster 2, H3a is the core component of nucleosome. Nucleosomes wrap and compact DNA into chromatin, limiting DNA accessibility to the cellular machinery which requires 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. Histone-H3 is expressed during S phase; then expression strongly decreases as cell division slows down during the process of differentiation.

## Storage

**Storage:**

Store at -20°C. Stable for one year after shipment.

**Storage Buffer:**

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

**\*\*\* 20ul sizes contain 0.1% BSA**

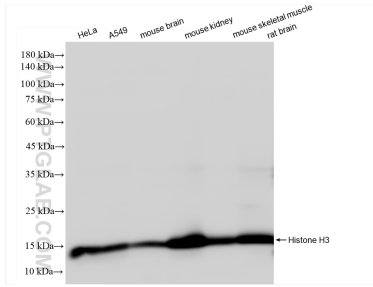
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free  
in USA), or 1(312) 455-8498 (outside USA)

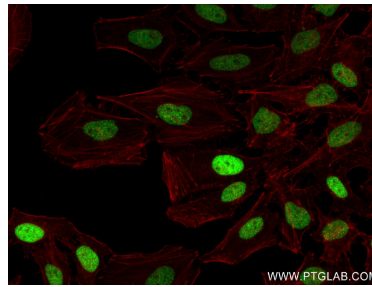
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
W: [ptglab.com](http://ptglab.com)

**This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.**

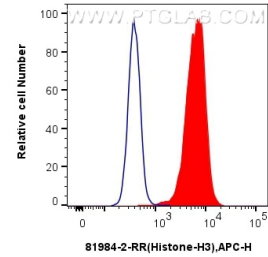
## Selected Validation Data



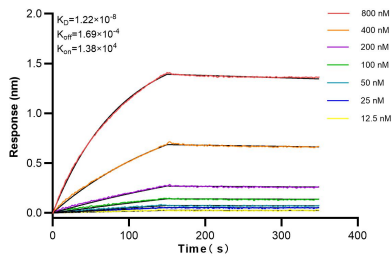
Various lysates were subjected to SDS PAGE followed by western blot with 81984-2-RR (Histone H3 antibody) at dilution of 1:25000 incubated at room temperature for 1.5 hours.



Immunofluorescent analysis of (-20°C Ethanol) fixed HeLa cells using Histone H3 antibody (81984-2-RR, Clone: 241079B2) at dilution of 1:400 and CoraLite@488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-Phalloidin (red).



$1 \times 10^6$  HepG2 cells were intracellularly stained with 0.25  $\mu$ g Histone H3 Recombinant antibody (81984-2-RR, Clone:241079B2) and APC-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (red), or 0.25  $\mu$ g Isotype Control (blue). Cells were fixed and permeabilized with True-Nuclear Transcription Factor Buffer Set.



Biolayer interferometry (BLI) kinetic assays of 81984-2-RR against Human Histone H3 were performed. The affinity constant is 12.2 nM.