

For Research Use Only

# Histone H3 Recombinant antibody

Catalog Number: 81984-2-RR



## Basic Information

<b>Catalog Number:</b> 81984-2-RR	<b>GenBank Accession Number:</b> BC015544	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 100ul , Concentration: 1000 µg/ml by Nanodrop;	<b>GeneID (NCBI):</b> 333932	<b>CloneNo.:</b> 241079B2
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> Q71DI3	<b>Recommended Dilutions:</b> WB 1:5000-1:50000 IHC 1:250-1:1000 IF/ICC 1:200-1:800
<b>Isotype:</b> IgG	<b>Full Name:</b> histone cluster 2, H3a	
<b>Immunogen Catalog Number:</b> AG10644	<b>Calculated MW:</b> 136 aa, 15 kDa	
	<b>Observed MW:</b> 15 kDa	

## Applications

<b>Tested Applications:</b> WB, IHC, IF/ICC, FC (Intra), ELISA	<b>Positive Controls:</b>
<b>Species Specificity:</b> human, mouse, rat	<b>WB :</b> HeLa cells, A549 cells, mouse brain tissue, mouse kidney tissue, mouse skeletal muscle tissue, rat brain tissue
<b>Note-IHC:</b> suggested antigen retrieval with <b>TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0</b>	<b>IHC :</b> mouse brain tissue,
	<b>IF/ICC :</b> 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

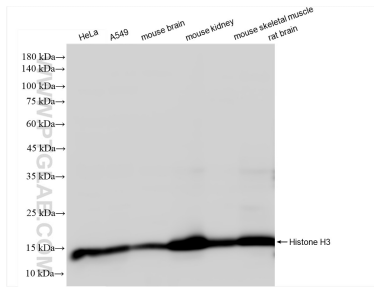
**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol, pH7.3  
**Aliquoting is unnecessary for -20°C storage**

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

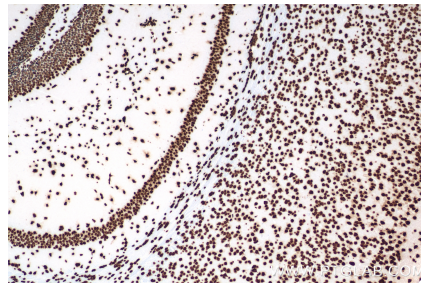
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
E: proteintech@ptglab.com  
W: ptglab.com

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

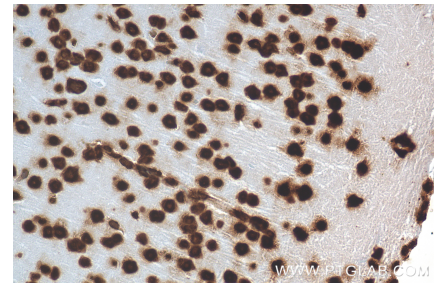
## Selected Validation Data



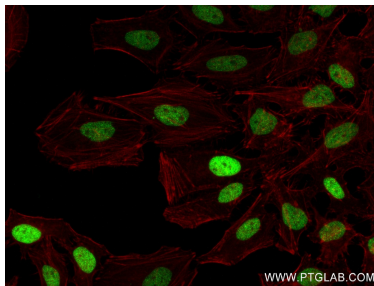
Various lysates were subjected to SDS PAGE followed by western blot with 81984-2-RR (Histone H3 antibody) at dilution of 1:25000 incubated at room temperature for 1.5 hours.



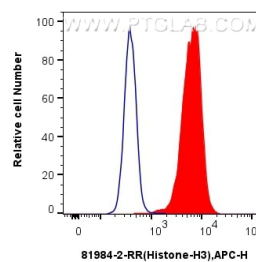
Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 81984-2-RR (Histone H3 antibody) at dilution of 1:500 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



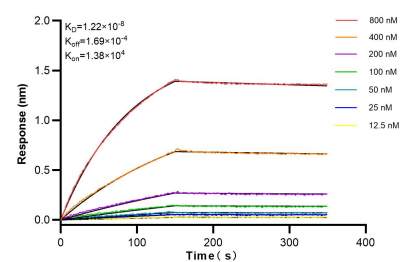
Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 81984-2-RR (Histone H3 antibody) at dilution of 1:500 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



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 ug Histone H3 Recombinant antibody (81984-2-RR, Clone:241079B2) and APC-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (red), or 0.25 ug 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.