# Recombinant Histone H3 (NT) Monoclonal Antibody

**catalog number:** **AN301549L**

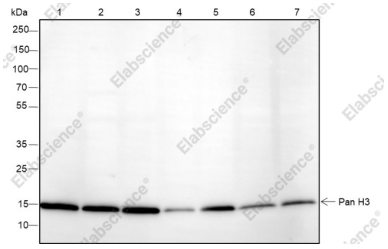
**Note:** *Centrifuge before opening to ensure complete recovery of vial contents.*

## Description

| | |
|---|---|
| **Reactivity** | Human;Mouse;Rat |
| **Immunogen** | Synthetic peptide corresponding to the N-terminus of human histone H3 protein |
| **Host** | Rabbit |
| **Isotype** | Rabbit IgG |
| **Clone** | C111172 |
| **Purification** | Protein A purified |
| **Buffer** | PBS, 50% glycerol, 0.05% Proclin 300, 0.05% protein protectant. |

| Applications | Recommended Dilution |
|---|---|
| **WB** | 1:500-1:1000 |
| **IHC** | 1:100-1:500 |
| **IF** | 1:50-1:200 |
| **FCM** | 1:50-1:100 |
| **ChIP** | 6 μg/5×$10^6$ cells |

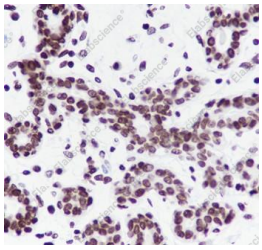
## Data



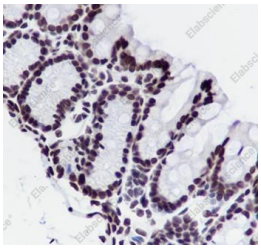

Western Blot with Histone H3 Monoclonal Antibody at dilution of 1:1000. Lane 1: HeLa, Lane 2: NIH-3T3, Lane 3: BRL, Lane 4: Rat kidney, Lane 5: Mouse kidney, Lane 6: Rat brain, Lane 7: Mouse brain

**Observed-MW:15 kDa**

**Calculated-MW:15 kDa**



Immunohistochemistry of paraffin-embedded Human prostate hyperplasia using Histone H3 Monoclonal Antibody at dilution of 1:500.

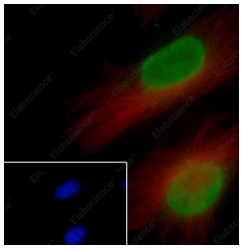


Immunohistochemistry of paraffin-embedded Mouse colon using Histone H3 Monoclonal Antibody at dilution of 1:500.

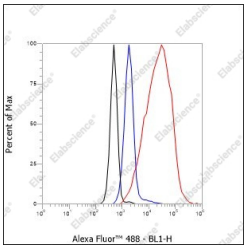


Immunohistochemistry of paraffin-embedded Rat colon using Histone H3 Monoclonal Antibody at dilution of 1:500.

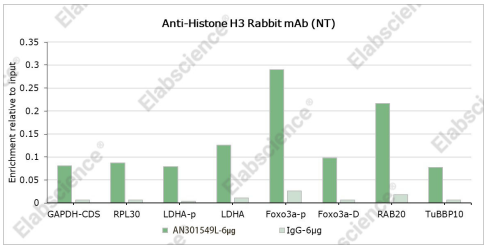

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Immunofluorescent analysis of (100% Ice-cold methanol) fixed HeLa cells using anti-Histone H3 Monoclonal Antibody at dilution of 1:200.




Flow cytometric analysis of human Histone H3 expression on HeLa cells. Cells were stained with purified anti-Human Histone H3, then a Alexa Fluor 488-conjugated second step antibody. The histogram were derived from events with the forward and side light-scatter characteristics of intact cells.




Chromatin immunoprecipitation analysis of HeLa immunoprecipitated DNA by real-time PCR using primers specific for the human GAPDH-CDS, RPL30, LDHA-promoter, LDHA, FOXO3a-promoter, FOXO3a-downstream, TUBBP10. The data are presented as enrichment of each sample relative to the total amount of input chromatin at each amplicon.

## Preparation & Storage

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|---|---|
| **Storage** | Store at -20°C Valid for 12 months. Avoid freeze / thaw cycles. |
| **Shipping** | Ice bag |

## Background

Histones are a family of basic proteins that form the core of the nucleosome – the fundamental structural unit of chromatin. In a single nucleosome, core histone proteins H2A, H2B, H3, and H4 form an octamer around which the DNA is tightly wrapped. Histone proteins not only serve to compact chromosomal DNA but also play vital roles in the dynamic and long-term regulation of genes by a wide variety of post-translational modifications (PTMs). These PTMs including acetylation, methylation, phosphorylation, and novel acylations directly affect the accessibility of chromatin to transcription factors and other epigenetic regulators, altering genome stability and gene transcription. Among the histone members, histone H3 is the most extensively modified and its amino-terminal tail structure has been shown to be especially critical for eukaryotic cells.


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