

**Histone H3 Rabbit Monoclonal Antibody  
Product Data Sheet**

**Catalog #1326-1**

**Clone ID:** E173-58      **Lot #:** please refer to vial  
**Quantity:** 100 µl  
**Type:** Rabbit Monoclonal IgG  
**Species Cross-reactivity:**  Human  Mouse  Rat  
**Applications:**  WB  IHC  ICC  Flow Cytometry  IP  
**Molecular Wt.:** 17 kDa  
**UniProt ID:** Q16695

**Background:** Changes in chromatin structure play a large role in the regulation of transcription in eukaryotes (1). The nucleosome is the primary building block of chromatin, and is made up of four core histone proteins (H2A, H2B, H3 and H4) (2). Acetylation of core histones regulates gene expression (2). Histone H3 is primarily acetylated at lysines 9, 14, 18, and 23 (3,4). Acetylation at lysine 9 appears to have a dominant role in histone deposition and chromatin assembly in some organisms (3,4). Phosphorylation at Ser10 of histone H3 is tightly correlated with chromosome condensation during both mitosis and meiosis (5).

**Specificity:** A synthetic peptide corresponding to residues surrounding Ser10 of Human Histone H3 was used as immunogen. Predicted to cross-react with most species, based on sequence homology.

**Storage Conditions:** Store at -20 °C. Buffer: 50 mM Tris-Glycine (pH 7.4), 0.15 M NaCl, 40% Glycerol, 0.01% sodium azide and 0.05% BSA. Stable for 12 months from date of receipt.

**Recommended Dilutions:**

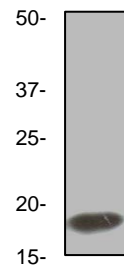
WB: 1:5,000-20,000  
IHC: 1:100  
ICC: 1:250  
IP: 1:100

**Background References:**

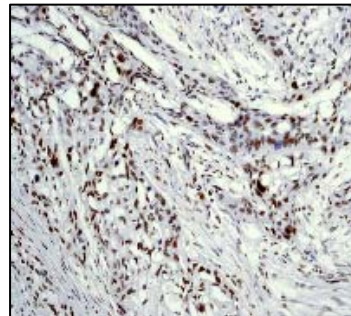
1. Braunstein, M., et al. Efficient transcriptional silencing in *Saccharomyces cerevisiae* requires a heterochromatin histone acetylation pattern. *Mol. Cell. Biol.* 16: 4349–56 (1996).
2. Workman, J.L. and R.E. Kingston. Alteration of nucleosome structure as a mechanism of transcriptional regulation. *Annu. Rev. Biochem.* 67: 545–579 (1998).
3. Hansen, J.C. et al. Structure and function of the core histone N-termini: more than meets the eye. *Biochemistry* 37, 17637–17641 (1998).
4. Strahl, B.D. and C.D. Allis. The language of covalent histone modifications. *Nature* 403, 41–45 (2000).

5. Hendzel, M.J., et al. Mitosis-specific phosphorylation of histone H3 initiates primarily within pericentromeric heterochromatin during G2 and spreads in an ordered fashion coincident with mitotic chromosome condensation. *Chromosoma* 106: 348–360 (1997).

**kDa**



**Fig 1.** Western blot analysis on Hela cell lysate using anti-Histone H3 RabMAb (cat. #1326-1), 1:20,000 dilution.



**Fig 2.** Immunohistochemical staining of paraffin-embedded human cervical carcinoma using anti-Histone H3 RabMAb (cat. #1326-1).

Product QC'd by: \_\_\_\_\_

**For research use only. Not for use in diagnostic or therapeutic applications.**

*This product was manufactured under U.S. Patent No. 5,675,063. For a complete list of protocols and available related products, please visit [www.epitomics.com](http://www.epitomics.com).*