

**Rabbit Anti-Histone H3 Phospho/PHH3 (pSer10) [MD111R]: RM0464, RM0464RTU7**

**Intended Use:** For Research Use Only

**Description:** Phosphohistone-H3 (PHH3) is a core histone protein, which together with other histones forms the major protein constituents of the chromatin in eukaryotic cells. In mammalian cells, phosphohistone H3 is negligible during interphase but reaches a maximum for chromatin condensation during mitosis. Immunohistochemical studies showed anti-PHH3 detected specifically the core protein histone H3 only when phosphorylated at serine 10. Studies have also revealed no phosphorylation on the histone H3 during apoptosis. Therefore, PHH3 can serve as a mitotic marker to separate mitotic figures from apoptotic bodies and karyorrhectic debris, which may be a very useful tool in diagnosis of tumor grades, especially in CNS, skin, Gyn., Soft tissue, and GIST.

**Specifications**

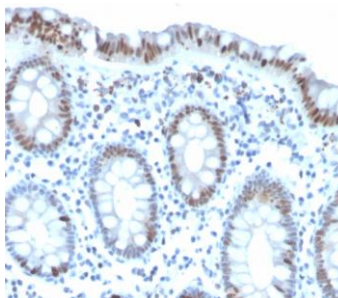
Clone: MD111R  
 Source: Rabbit  
 Isotype: IgG  
 Reactivity: Human  
 Immunogen: Synthetic peptide to phosphorylated histone H3 (PHH3) residues aa1-100 (pSer10)  
 Localization: Nucleus  
 Formulation: Purified antibody in PBS pH7.4, containing 0.2% BSA and ≤ 0.09% sodium azide (NaN<sub>3</sub>)  
 Storage: Store at 2 - 8°C  
 Applications: IHC  
 Package:

Description	Catalog No.	Size
Histone H3 Phospho/PHH3 (pSer10) Concentrated	RM0464	1 ml
Histone H3 Phospho/PHH3 (pSer10) Prediluted	RM0464RTU7	7 ml

**IHC Procedure\***

Positive Control Tissue: Breast cancer, tonsil  
 Concentrated Dilution: 50-200  
 Pretreatment: Tris EDTA pH9.0, 15 minutes Pressure Cooker or 30-60 minutes water bath at 95°-99°C  
 Incubation Time and Temp: 30-60 minutes @ RT  
 Detection: Refer to the detection system manual

\* Result should be confirmed by an established diagnostic procedure.



FFPE human colon stained with anti-PHH3 using DAB

**References:**

1. PHH3 and survivin are co-expressed in high-risk endometrial cancer and are prognostic relevant. Brunner A, et al. Br J Cancer. 2012 Jun 26;107(1):84-90.
2. Scoring the percentage of Ki67 positive nuclei is superior to mitotic count and the mitosis marker phosphohistone H3 (PHH3) in terms of differentiating flat lesions of the bladder mucosa. Gunia S, et al. J Clin Pathol. 2012 Aug; 65(8):715-20.
3. Clear cells are associated with proliferative activity in ependymoma: a quantitative study. Ishizawa K, et al. Clin Neuropathol. 2012 May-Jun;31(3):146-51.
4. Immunohistochemical dual staining as an adjunct in assessment of mitotic activity in melanoma. Ikenberg K, et al. J Cutan Pathol. 2012 Mar;39(3):324-30.

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Rev. A