

**Rabbit Anti-MCM2 [EP40]: RM0124**

**Intended Use:** For Research Use Only

**Description:** Minichromosome maintenance protein 2 (MCM2), also known as DNA replication licensing factor MCM2, is a member of the MCM family that regulates mammalian DNA replication. This family is composed of six related subunits, called the hexameric MCM2-7 complex, that are conserved in all eukaryotes. It functions as a replicative helicase, the molecular motor that both unwinds duplex DNA and powers fork progression during DNA replication. MCM2 acts as a factor to license DNA for one and only one round of replication per cell cycle. In the cell cycle, levels of the MCM family gradually increase in a variable manner from G0 into the G1/S phase. In the G0 stage, the amounts of MCM2 and MCM5 proteins are much lower than that of MCM7 and MCM3 proteins, so some of them participate in cell cycle regulation. MCM2 is localized in the nucleus throughout interphase. It is required for entry into the S phase and cell division. Anti-MCM2 labels proliferating cells in normal and tumor tissue. MCM2 has been used as a proliferation marker superior to Ki-67 for identification of premalignant lesions in colon, lung and other epithelial tissues. In addition, the MCM2 antibody is helpful in the distinction of malignant mesothelioma (higher labeling index) from reactive mesothelial proliferation.

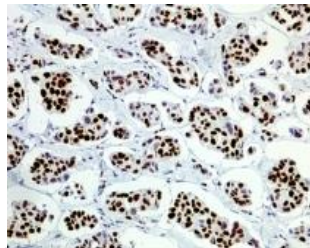
**Specifications**

Clone: EP40  
 Source: Rabbit  
 Isotype: IgG  
 Localization: Nucleus  
 Formulation: Purified antibody in 0.1M Tris, 0.1M Glycine, 10% Glycerol pH 7.0  
 Storage: Store at 2°- 8°C. For longer periods of storage, store at -20°C. Avoid repeat freeze-thaw cycles  
 Applications: IHC for FFPE, Frozen  
 Package:

Description	Catalog No.	Size
MCM2 Concentrated	RM0124	1 ml

**IHC Procedure\***

Positive Control Tissue: Tonsil, breast carcinoma  
 Concentrated Dilution: 50-200  
 Pretreatment: Citrate pH 6.0, 15 minutes using Pressure Cooker, or 30-60 minutes using 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.



Human breast carcinoma FFPE tissue stained with anti-MCM2 using DAB

**References:**

1. Utility of ProEx C in the histologic evaluation of the neoplastic and nonneoplastic urothelial lesions. Moatamed NA, Vet al. Hum Pathol. 2013 Nov;44(11):2509-17.
2. Diagnosis of bladder cancer by immunocytochemical detection of minichromosome maintenance protein-2 in cells retrieved from urine. Saeb-Parsy K, et al. Br J Cancer. 2012 Oct 9;107(8):1384-91.
3. Expression of ProEXC, p16 and Ki-67 in cervical intraepithelial lesion by immunohistochemistry: diagnostic and clinical significance. Yang QC, et al. Zhonghua Bing Li Xue Za Zhi. 2012 Jun;41(6):405-7.
4. Immunohistochemical expression of minichromosome maintenance complex protein 2 predicts biochemical recurrence in prostate cancer: a tissue microarray and digital imaging analysis-based study of 428 cases. Toubaji A, et al. Hum Pathol. 2012 Nov;43(11):1852-65.

Doc. 100-RM0124  
Rev. A