**CDC47 / MCM7 Ab-2 (Clone 47DC141; same as DCS-141)**

**Mouse Monoclonal Antibody**

Cat. #MS-862-P0, -P1, or -P (0.1ml, 0.5ml, or 1.0ml at 200µg/ml) (Purified Ab with BSA and Azide)
Cat. #MS-862-P1ABX or -PABX (0.1ml or 0.2ml at 1.0mg/ml) (Purified Ab without BSA and Azide)
Cat. #MS-862-B0, -B1, or -B (0.1ml, 0.5ml, or 1.0ml at 200µg/ml) (Biotin-labeled Ab with BSA and Azide)
Cat. #MS-862-R7 (7.0ml) (Ready-to-Use for Immunohistochemical Staining)
Cat. #MS-862-PCS (5 Slides) (Positive Control forHistology)
Cat. #MS-862-PCL (0.1ml) (Positive Control for Western Blot)

**Description:**

hCDC47 is a human member of the MCM family, which allows DNA to replicate once per cell cycle. In quiescent cells, human MCM7 (hMCM7) mRNA is almost undetectable. Stimulation of cells to enter the cell cycle results in induction of hMCM7 expression. The hCDC47 protein expression and localization is found in nuclei of the proliferative components of normal lymph nodes, bone marrow, epidermis and mucosa. Malignant tumors from several organs contained more nuclear hCDC47-positive cells than their normal counterparts. These results indicate that hCDC47 may play a role in normal and neoplastic cell growth in vivo.

**Comments:**

Immunolocalization with Ab-2 in formalin-fixed, paraffin-embedded human and animal tissues may provide an index of cell proliferation.

**Mol. Wt. of Antigen:** 80kDa

**Epitope:** Not determined

**Species Reactivity:** Human, Mouse, Rat, Dog, Xenopus. Others-not known.

**Clone Designation:** 47DC141 or DCS-141

**Ig Isotype:** IgG1

**Immunogen:** Recombinant hCDC47 protein.

**Applications and Suggested Dilutions:**

- Immunofluorescence
- Immunoprecipitation (Native and denatured) (Use Protein G) (Ab 2µg/mg protein lysate)
- Western Blotting (Ab 1-2µg/ml for 2hrs at RT)
- Immunohistology (Formalin/paraffin) (Use Ab 0.5-1.0µg/ml for 30 min at RT)

* [Staining of formalin-fixed tissues REQUIRES boiling tissue sections in 10mM citrate buffer, pH 6.0, (NEOMARKERS’ Cat. #AP-9003), for 10-20 min followed by cooling at RT for 20 min.]

The optimal dilution for a specific application should be determined by the investigator.

**Cellular Localization:** Nuclear

**Positive Control:** MAD109, or PC12 cells. Tonsil or breast cancer.

**Supplied As:** 200µg/ml of antibody purified from ascites fluid by Protein G chromatography. Prepared in 10mM PBS, pH 7.4, with 0.2% BSA and 0.09% sodium azide. Also available without BSA and azide at 1mg/ml, or Prediluted antibody which is ready-to-use for staining of formalin-fixed, paraffin-embedded tissues.

**Storage and Stability:**

Ab with sodium azide is stable for 24 months when stored at 2-8°C. Antibody WITHOUT sodium azide is stable for 36 months when stored at below 0°C.

**Suggested References:**


**Limitations and Warranty:**

Our products are intended FOR RESEARCH USE ONLY and are not approved for clinical diagnosis, drug use or therapeutic procedures. No products are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our data sheets and website. Our warranty is limited to the actual price paid for the product. NeoMarkers is not liable for any property damage, personal injury, time or effort or economic loss caused by our products.

**Material Safety Data:**

This product is not licensed or approved for administration to humans or to animals other than the experimental animals. Standard Laboratory Practices should be followed when handling this material. The chemical, physical, and toxicological properties of this material have not been thoroughly investigated. Appropriate measures should be taken to avoid skin and eye contact, inhalation, and ingestion. The material contains 0.09% sodium azide as a preservative. Although the quantity of azide is very small, appropriate care should be taken when handling this material as indicated above. The National Institute of Occupational Safety and Health has issued a bulletin citing the potential explosion hazard due to the reaction of sodium azide with copper, lead, brass, or solder in the plumbing systems. Sodium azide forms hydrazoic acid in acidic conditions and should be discarded in a large volume of running water to avoid deposits forming in metal drainage pipes.

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