

# Anti-MCM8 Picoband Antibody

Catalog # ABO12408

### Specification

## **Anti-MCM8 Picoband Antibody - Product Information**

ApplicationWBPrimary AccessionO9UJA3HostRabbitReactivityHumanClonalityPolyclonalFormatLyophilizedDescriptionRabbit IgG polyclonal antibody for DNA helicase MCM8(MCM8) detection. Tested with WB in Human.

**Reconstitution** Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

## Anti-MCM8 Picoband Antibody - Additional Information

Gene ID 84515

**Other Names** DNA helicase MCM8, 3.6.4.12, Minichromosome maintenance 8, MCM8, C20orf154

Calculated MW 93697 MW KDa

**Application Details** Western blot, 0.1-0.5 μg/ml, Human<br>

**Subcellular Localization** Nucleus . Localizes to nuclear foci and colocalizes with RAD51.

**Tissue Specificity** Highest levels in placenta, lung and pancreas. Low levels in skeletal muscle and kidney. Expressed in various tumors with highest levels in colon and lung cancers.

Protein Name DNA helicase MCM8

**Contents** Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human MCM8 (809-840aa IQVADFENFIGSLNDQGYLLKKGPKVYQLQTM), different from the related mouse and rat sequences by one amino acid.



**Purification** Immunogen affinity purified.

**Cross Reactivity** No cross reactivity with other proteins.

Storage

At -20°C for one year. After r°Constitution, at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.

## **Anti-MCM8 Picoband Antibody - Protein Information**

Name MCM8

Synonyms C20orf154

#### Function

Component of the MCM8-MCM9 complex, a complex involved in the repair of double-stranded DNA breaks (DBSs) and DNA interstrand cross- links (ICLs) by homologous recombination (HR) (PubMed:<a href="http://www.uniprot.org/citations/23401855" target="\_blank">23401855</a>). Required for DNA resection by the MRE11-RAD50-NBN/NBS1 (MRN) complex by recruiting the MRN complex to the repair site and by promoting the complex nuclease activity (PubMed:<a href="http://www.uniprot.org/citations/26215093" target=" blank">26215093</a>). Probably by regulating the localization of the MNR complex, indirectly regulates the recruitment of downstream effector RAD51 to DNA damage sites including DBSs and ICLs (PubMed: <a href="http://www.uniprot.org/citations/23401855" target=" blank">23401855</a>). The MCM8-MCM9 complex is dispensable for DNA replication and S phase progression (PubMed:<a href="http://www.uniprot.org/citations/23401855" target=" blank">23401855</a>). However, may play a non-essential for DNA replication: may be involved in the activation of the prereplicative complex (pre-RC) during G(1) phase by recruiting CDC6 to the origin recognition complex (ORC) (PubMed:<a href="http://www.uniprot.org/citations/15684404" target=" blank">15684404</a>). Probably by regulating HR, plays a key role during gametogenesis (By similarity). Stabilizes MCM9 protein (PubMed: <a href="http://www.uniprot.org/citations/23401855" target="\_blank">23401855</a>, PubMed:<a href="http://www.uniprot.org/citations/26215093" target="\_blank">26215093</a>).

#### **Cellular Location**

Nucleus. Chromosome. Note=Localizes to nuclear foci (PubMed:26215093). Localizes to double-stranded DNA breaks (PubMed:23401855). Binds chromatin throughout the cell cycle (PubMed:15684404).

#### Tissue Location

Highest levels in placenta, lung and pancreas. Low levels in skeletal muscle and kidney. Expressed in various tumors with highest levels in colon and lung cancers

### **Anti-MCM8 Picoband Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot



- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

# Anti-MCM8 Picoband Antibody - Images

1 2 3 4 5 130KD – – – – – 100KD – 70KD – 55KD – 35KD – 25KD – 15KD –

Anti- MCM8 Picoband antibody, ABO12408, Western blottingAll lanes: Anti MCM8 (ABO12408) at 0.5ug/mlLane 1: A549 Whole Cell Lysate at 40ugLane 2: SW620 Whole Cell Lysate at 40ugLane 3: HELA Whole Cell Lysate at 40ugLane 4: PANC Whole Cell Lysate at 40ugLane 5: HEPG2 Whole Cell Lysate at 40ugPredicted bind size: 94KDObserved bind size: 94KD

# Anti-MCM8 Picoband Antibody - Background

DNA replication licensing factor MCM8 is a protein that in humans is encoded by the MCM8 gene. The protein encoded by this gene is one of the highly conserved mini-chromosome maintenance proteins (MCM) that are essential for the initiation of eukaryotic genome replication. The hexameric protein complex formed by the MCM proteins is a key component of the pre-replication complex (pre\_RC) and may be involved in the formation of replication forks and in the recruitment of other DNA replication related proteins. This protein contains the central domain that is conserved among the MCM proteins. And this protein has been shown to co-immunoprecipitate with MCM4, 6 and 7, which suggests that it may interact with other MCM proteins and play a role in DNA replication. Alternatively spliced transcript variants encoding distinct isoforms have been described.