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Anti-MCM8 Picoband Antibody

Catalog # ABO12408

Product Information

Application	WB
Primary Accession	Q9UJA3
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit 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.

Additional Information

Gene ID	84515
Other Names	DNA helicase MCM8, 3.6.4.12, Minichromosome maintenance 8, MCM8, C20orf154
Calculated MW	93697
Application Details	Western blot, 0.1-0.5 □g/ml, Human
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. .
Source	Eukaryota
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.

Protein Information

Name	MCM8
Synonyms	C20orf154
Function	Component of the MCM8-MCM9 complex, which is involved in the repair of double-stranded DNA breaks (DBSs) and DNA interstrand cross- links (ICLs) by homologous recombination (HR) (PubMed:23401855). The MCM8-MCM9 complex is a 3'-5' DNA helicase and single-stranded (ss)DNA- stimulated ATPase which binds ssDNA in the presence of nucleoside triphosphates (PubMed:37309874). 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:26215093). Indirectly regulates the recruitment of downstream effector RAD51 to DNA damage sites including DBSs and ICLs, probably by regulating the localization of the MNR complex (PubMed:23401855). The MCM8-MCM9 complex is dispensable for DNA replication and S phase progression (PubMed:23401855). 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:15684404). Facilitates somatic mitochondrial (mt)DNA recombination (PubMed:36355348). Plays a key role during gametogenesis, probably by regulating HR (By similarity). Stabilizes MCM9 protein (PubMed:23401855, PubMed:26215093).
Cellular Location	Nucleus. Chromosome. Cytoplasm. Mitochondrion matrix. Note=Localizes to nuclear foci (PubMed:26215093). Localizes to double-stranded DNA breaks (PubMed:23401855). Binds chromatin throughout the cell cycle (PubMed:15684404). Colocalizes with mitochondrial DNA (PubMed:36355348).
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

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.

Images

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

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.