

MCM8 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP57013

Product Information

Application IHC-P, IHC-F, IF, ICC

Primary Accession

Reactivity

Dog, Bovine

Host

Clonality

Calculated MW

Polyclonal

Physical State

Q9UJA3

Pog, Bovine

Rabbit

Polyclonal

Polyclonal

Liquid

Immunogen KLH conjugated synthetic peptide derived from human MCM8

Epitope Specificity 301-400/840

Isotype IgG

Purity affinity purified by Protein A

Buffer 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.

SUBCELLULAR LOCATION Nucleus. Localizes to nuclear foci and colocalizes with RAD51.

SIMILARITY Belongs to the MCM family. Contains 1 MCM domain.

Important Note This product as supplied is intended for research use only, not for use in

human, therapeutic or diagnostic applications.

Background Descriptions 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 mini-chromosome maintenance proteins is a key component of the pre-replication complex 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 mini-chromosome maintenance proteins. The encoded protein may interact with other mini-chromosome maintenance proteins and play a role in DNA replication. This gene may be associated with length of reproductive lifespan and menopause. Alternatively spliced transcript variants encoding distinct isoforms have been described. [provided by RefSeq, Jul 2013]

Additional Information

Gene ID 84515

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

C20orf154

Target/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.

Dilution IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500

Storage

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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:23401855). 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). 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:23401855). The MCM8-MCM9 complex is dispensable for DNA replication and S phase progression (PubMed:23401855). 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:15684404). Probably by regulating HR, plays a key

(PubMed: 23401855, PubMed: 26215093).

Cellular LocationNucleus. Chromosome. Note=Localizes to nuclear foci (PubMed:26215093).

Localizes to double-stranded DNA breaks (PubMed:23401855). Binds

role during gametogenesis (By similarity). Stabilizes MCM9 protein

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

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