

Rabbit MCM2 Polyclonal Antibody | anti-MCM2 antibody

MCM2 Antibody

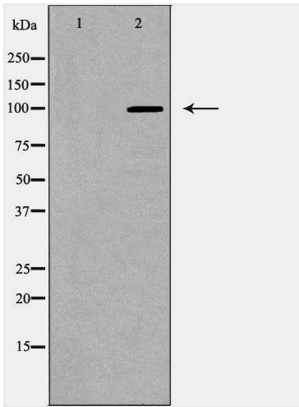
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA325982	Rabbit	Human, Mouse, Rat	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

MCM2; Polyclonal Antibody; MCM2 Antibody; BM28; CCNL 1; CCNL1; CDC like 1; cdc19; CDCL 1; CDCL1; Cell division cycle like 1; Cyclin like 1; D3S3194; DNA replication licensing factor MCM2; KIAA0030; MCM 2; MCM2 minichromosome maintenance deficient 2 mitotin; MCM2 minichromosome maintenance deficient 2 mitotin (S. cerevisiae); MCM2 minichromosome maintenance deficient 2; mitotin; MCM2_HUMAN; MGC10606; Minichromosome maintenance complex component 2; Minichromosome maintenance deficient 2 (mitotin); Minichromosome maintenance deficient 2 mitotin; Minichromosome maintenance protein 2; Minichromosome maintenance protein 2 homolog; Mitotin; Nuclear protein BM28; OTTHUMP00000216047; OTTHUMP00000216050; anti-MCM2 antibody

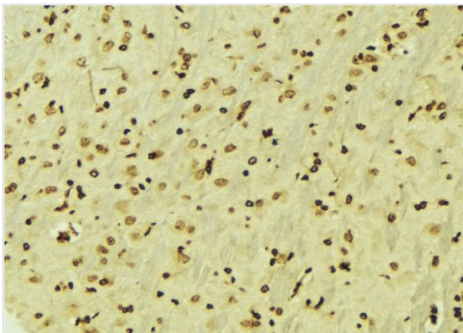
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	MCM2 antibody detects endogenous levels of total MCM2
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	904
Applicable Applications for anti-MCM2 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human MCM2
Subcellular Location	Nucleus.
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



WB (Western Blot)

Western blot analysis of Mouse lung lysate, using MCM2 Antibody. The lane on the left is treated with the antigen-specific peptide.



IHC (Immunohistochemistry)

AAA325982 at 1/100 staining Mouse brain tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

ADDITIONAL INFORMATION

Related Product Information for anti-MCM2 antibody

Description: The minichromosome maintenance (MCM) 2-7 proteins are a family of six related proteins required for the initiation and elongation of DNA replication. MCM2-7 bind together to form the heterohexameric MCM complex that is thought to act as a replicative helicase at the DNA replication fork (1-5). This complex is also a key component of the pre-replication complex (pre-RC) (reviewed in 1). Cdc6 and CDT1 recruit the MCM complex to the origin recognition complex (ORC) during late mitosis/early G1 phase forming the pre-RC and licensing the DNA for replication (reviewed in 2). Phosphorylation of the MCM2, MCM3, MCM4, and MCM6 subunits appears to regulate MCM complex activity and the initiation of DNA synthesis (6-8). MCM proteins are removed during DNA replication, causing chromatin to become unlicensed through inhibition of pre-RC reformation. Licensing of the chromatin permits the DNA to replicate only once per cell cycle, thereby helping to ensure that genetic alterations and malignant cell growth do not occur (reviewed in 3). Studies have shown that the MCM complex is involved in checkpoint control by protecting the structure of the replication fork and assisting in restarting replication by recruiting checkpoint proteins after arrest (reviewed in 3, 9).

Function: Acts as component of the MCM2-7 complex (MCM complex) which is the putative replicative helicase essential for 'once per cell cycle' DNA replication initiation and elongation in eukaryotic cells. The active ATPase sites in the MCM2-7 ring are formed through the interaction surfaces of two neighboring subunits such that a critical structure of a conserved arginine finger motif is provided in trans relative to the ATP-binding site of the Walker A box of the adjacent subunit. The six ATPase active sites, however, are likely to contribute differentially to the complex helicase activity. Required for the entry in S phase and for cell division. Plays a role in terminally differentiated hair cells development of the cochlea and induces cells apoptosis.

Subunit Structure: Component of the MCM2-7 complex. The complex forms a toroidal hexameric ring with the proposed subunit order MCM2-MCM6-MCM4-MCM7-MCM3-MCM5 (Probable). Interacts with DBF4 (By similarity). Interacts with KAT7. May interact with MCM10. Component of the replisome complex composed of at least DONSON, MCM2, MCM7, PCNA and TICRR (PubMed:28191891).

Post-translational Modifications: Phosphorylated on Ser-108 by ATR in proliferating cells. Ser-108 proliferation is increased by genotoxic agents. Ser-40 is mediated by the CDC7-DBF4 and CDC7-DBF4B complexes, while Ser-53 phosphorylation is only mediated by the CDC7-DBF4 complex. Phosphorylation by the CDC7-DBF4 complex during G1/S phase is required for the initiation of DNA replication.

Similarity: Belongs to the MCM family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	33356547
NCBI GeneID	4171
NCBI Accession #	NP_004517.2
NCBI GenBank Nucleotide #	NM_004526.3
UniProt Accession #	P49736; Q14577; Q15023; Q8N2V1; Q969W7; Q96AE1; Q9BRM7

Molecular Weight	Observed: 102 kDa Predicted: 102 kDa
NCBI Official Full Name	DNA replication licensing factor MCM2
NCBI Official Synonym Full Names	minichromosome maintenance complex component 2
NCBI Official Symbol	MCM2
NCBI Official Synonym Symbols	BM28; CCNL1; CDCL1; cdc19; DFNA70; D3S3194; MITOTIN
NCBI Protein Information	DNA replication licensing factor MCM2
UniProt Protein Name	DNA replication licensing factor MCM2
UniProt Gene Name	MCM2
UniProt Synonym Gene Names	BM28; CCNL1; CDCL1; KIAA0030

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/polyclonal/mcm2-antibody-immunohistochemistry-western-blot-elisa/325982>