Rabbit MCM2 Polyclonal Antibody | anti-MCM2 antibody

Phospho-MCM2 (Ser108) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA31328	**Rabbit**	**Human, Mouse, Rat**	**Western Blot, Immunohistochemistry, Immunofluorescence, Immunocytochemistry, ELISA**

PRODUCT SYNONYMS

MCM2; Polyclonal Antibody; Phospho-MCM2 (Ser108) Antibody; BM28; CCNL 1; CCNL1; CDC like 1; cdc19; CDCL 1; CDCL1; Cell devision 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	Rabbit IgG
Specificity	Phospho-MCM2 (Ser108) Antibody detects endogenous levels of MCM2 only when phosphorylated at Ser108.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-MCM2 antibody	WB (Western Blot), IHC (Immunohistochemistry), IF (Immunofluorescence), ICC (Immunocytochemistry), ELISA (Peptide ELISA)
Application Notes	IHC: 1:50-1:200 IF/ICC: 1:100-1:500 WB: 1:500-1:2000 Peptide ELISA: 1:20,000-1:40,000
Immunogen	A synthesized peptide derived from human MCM2 around the phosphorylation site of Ser108.
Conjugation	Unconjugated
Fragment	Fab fragment
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.
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.
Similarity	Belongs to the MCM family.
Subcellular Location	Nucleus.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES

Application Data
At 25 degree C. Samples were then incubated with primary Ab(At 37 degree C. An AlexaFluor594 conjugated goat anti-rabbit IgG(H+L) Ab(Red) and an AlexaFluor488 conjugated goat anti-mouse IgG(H+L) Ab(Green) were used as the secondary antibody.The nuclear counter stain is DAPI (blue).

IHC (Immunohistochemistry)
At 1/100 staining Mouse liver 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 primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.

IHC (Immunohistochemistry)
At 1/100 staining Mouse kidney 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 primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.

IHC (Immunohistochemistry)
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 primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.

IHC (Immunohistochemistry)
Staining Rat liver 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 primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.

WB (Western Blot)
Western blot analysis of extracts from various samples, using Phospho-MCM2 (Ser108) Antibody.Lane 1: MCF7 cells(UV treatment), blocked with antigen-specific peptides,Lane 2: MCF7 cells(UV treatment),Lane 3: Hela cells(LPS treatment),Lane 4: Hela cells(heat shock treatment).

ADDITIONAL INFORMATION

Related Product Information for anti-MCM2 antibody	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.

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	101,896 Da
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; D3S3194; MITOTIN

NCBI Protein Information	DNA replication licensing factor MCM2; cyclin-like 1; nuclear protein BM28; cell devision cycle-like 1; minichromosome maintenance protein 2 homolog; minichromosome maintenance deficient 2 (mitotin); MCM2 minichromosome maintenance deficient 2, mitotin
UniProt Protein Name	DNA replication licensing factor MCM2
UniProt Gene Name	**MCM2**
UniProt Synonym Gene Names	BM28; CCNL1; CDCL1; KIAA0030
UniProt Entry Name	MCM2_HUMAN

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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