

# MCM2 Antibody

Rabbit mAb

Catalog # AP90250

## Product Information

<b>Application</b>	WB, IHC, IF, ICC, IHF
<b>Primary Accession</b>	<a href="#">P49736</a>
<b>Reactivity</b>	Rat, Human, Mouse
<b>Clonality</b>	Monoclonal
<b>Other Names</b>	BM28; CCNL1; cdc19; CDCL1; cell division cycle-like 1; cyclin-like 1; D3S3194; MCM2; MCM2 minichromosome maintenance deficient 2, mitotin;
<b>Isotype</b>	Rabbit IgG
<b>Host</b>	Rabbit
<b>Calculated MW</b>	101896

## Additional Information

<b>Dilution</b>	WB 1:1000~1:5000 IHC 1:50~1:200 ICC/IF 1:50~1:200
<b>Purification</b>	Affinity-chromatography
<b>Immunogen</b>	A synthesized peptide derived from human MCM2
<b>Description</b>	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. This complex is also a key component of the pre-replication complex (pre-RC). 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.
<b>Storage Condition and Buffer</b>	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

## Protein Information

<b>Name</b>	MCM2 ( <a href="#">HGNC:6944</a> )
<b>Function</b>	Acts as a component of the MCM2-7 complex (MCM complex) which is the replicative helicase essential for 'once per cell cycle' DNA replication initiation and elongation in eukaryotic cells. Core component of CDC45-MCM-GINS (CMG) helicase, the molecular machine that unwinds template DNA during replication, and around which the replisome is built (PubMed: <a href="#">32453425</a> , PubMed: <a href="#">34694004</a> , PubMed: <a href="#">34700328</a> , PubMed: <a href="#">35585232</a> ). 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

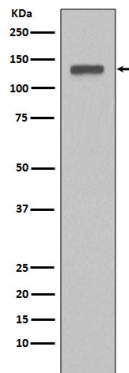
to contribute differentially to the complex helicase activity (PubMed:[32453425](#)). Required for the entry in S phase and for cell division (PubMed:[8175912](#)). Plays a role in terminally differentiated hair cells development of the cochlea and induces cells apoptosis (PubMed:[26196677](#)).

### Cellular Location

Nucleus. Chromosome. Note=Associated with chromatin before the formation of nuclei and detaches from it as DNA replication progresses.  
{ECO:0000250|UniProtKB:P55861}

## Images

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Western blot analysis of MCM2 expression in HeLa cell lysate.

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Immunohistochemical analysis of paraffin-embedded mouse colon, using MCM2 Antibody.

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