10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-MCM2 Antibody

Catalog # AP96146

Product Information

Application	WB, IHC, FC, IP, IF/IC
Primary Accession	P49736
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Calculated MW	101896

Additional Information

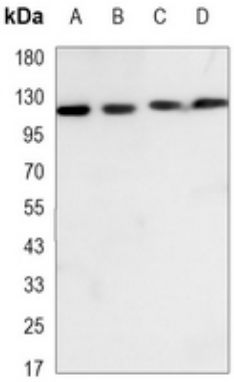
Gene ID	4171
Other Names	BM28; CCNL1; CDCL1; KIAA0030; DNA replication licensing factor MCM2; Minichromosome maintenance protein 2 homolog; Nuclear protein BM28
Target/Specificity	Purified recombinant fragment of human MCM2 expressed in E. Coli.
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 FC~~1:10~50 IP~~N/A IF/IC~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

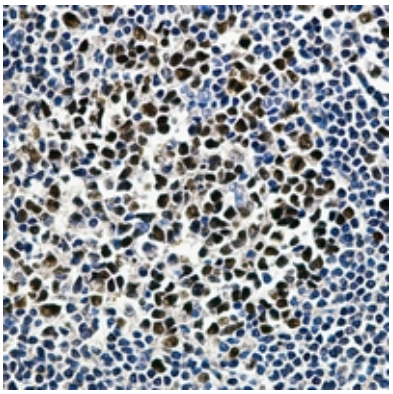
Name	MCM2 (HGNC:6944)
Function	Acts as a component of the MCM2-7 complex (MCM complex) which is the replicative helicase essential for 'once per cell cycle' DNA replication initiation and elongation in eukaryotic cells. Core component of CDC45-MCM-GINS (CMG) helicase, the molecular machine that unwinds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

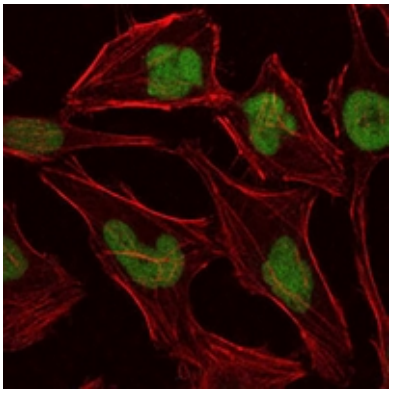
Images



Western blot analysis of MCM2 expression in Jurkat (A), K562 (B), NIH3T3 (C), Hela (D) whole cell lysates. (Predicted band size: 102 kD; Observed band size: 125 kD)



Immunohistochemical analysis of MCM2 staining in human tonsil formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of MCM2 staining in HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark.

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