Product datasheet

Anti-MCM4 Antibody

Catalog Number: *A02301-1*

BOSTER®
antibody and ELISA experts
BOSTER BIOLOGICAL TECHNOLOGY
Building C21, 3rd to 5th Floors, Optics Valley Biopharmaceutical Accelerator,
East Lake High-Tech Development Zone, Wuhan.
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Basic Information

Product Name	Anti-MCM4 Antibody
Gene Name	MCM4
Source	Rabbit
Clonality	Polyclonal
Isotype	IgG
Species Reactivity	human, mouse, rat
Tested Application	WB, IHC, ICC/IF, FCM, ELISA
Contents	500 ug/ml antibody with PBS, 0.02% NaN3, 1 mg/ml BSA and 50% glycerol.
Immunogen	E.coli-derived human MCM4 recombinant protein (Position: M361-A677).
Concentration	500 ug/ml
Purification	Immunogen affinity purified.
Observed MW	97 kDa
Dilution Ratios	Western blot (WB): 1:1000-5000 Immunohistochemistry (IHC): 1:50-400 Immunocytochemistry/Immunofluorescence (ICC/IF): 1:50-400 Flow Cytometry (Fixed): 1:50-200 Enzyme linked immunosorbent assay (ELISA): 1:100-1000 (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.

Storage

12 months from date of receipt，-20℃ as supplied.

Background Information

MCM4(MINICHROMOSOME MAINTENANCE, S. CEREVISIAE, HOMOLOG OF, 4), also called CDC21, S. POMBE, HOMOLOG OF, is a protein that in humans is encoded by the MCM4 gene. MCM4 is one of the highly conserved mini-chromosome maintenance proteins(MCM) that are essential for the initiation of eukaryotic genome replication. The MCM4 gene is mapped to 8q11.21. The 864-amino acid MCM4 protein has an observed molecular mass of 97 kD by SDS-PAGE, which is similar to its calculated molecular mass of 96.6 kD. Western blot analysis with and without phosphatase treatment suggested that MCM4 is highly phosphorylated in mitotic cells. In the absence of DDK, CDK phosphorylation at the distal

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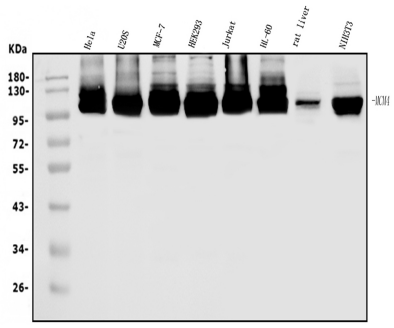
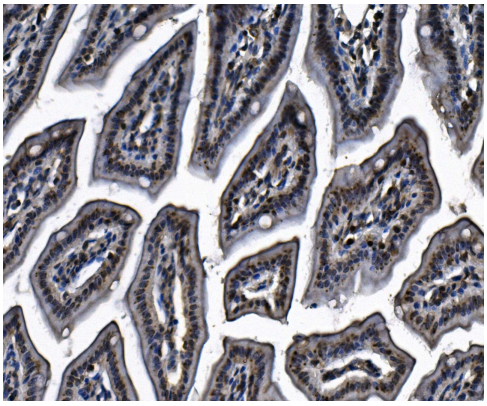
part of the Mcm4 NSD becomes crucial.MCM4 encodes a subunit of the MCM2-7 complex(also known as MCM2-MCM7), the replication licensing factor and presumptive replicative helicase.

Selected Validation Data



Western blot analysis of MCM4 using anti-MCM4 antibody (A02301-1). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human HELA whole cell lysates,
Lane 2: human U2OS whole cell lysates,
Lane 3: human MCF-7 whole cell lysates,
Lane 4: human HEK293 whole cell lysates,
Lane 5: human Jurkat whole cell lysates,
Lane 6: human HL-60 whole cell lysates,
Lane 7: rat liver tissue lysates,
Lane 8: mouse NIH/3T3 whole cell lysates.
After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-MCM4 antigen affinity purified polyclonal antibody (A02301-1) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for MCM4 at approximately 97 kDa. The expected band size for MCM4 is at 97 kDa.



IHC analysis of MCM4 using anti-MCM4 antibody (A02301-1). MCM4 was detected in a paraffin-embedded section of mouse colon tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was incubated with rabbit anti-MCM4 Antibody (A02301-1) at a dilution of 1:200 and developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB (Catalog # AR1027) as the chromogen.

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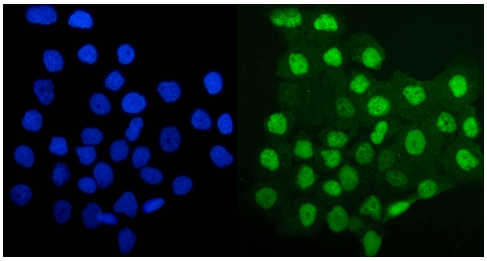
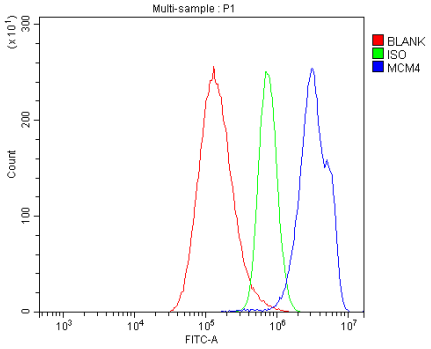


ICC/IF analysis of MCM4 using anti-MCM4 antibody (A02301-1). MCM4 was detected in an immunocytochemical section of A431 cells. The section was incubated with rabbit anti-MCM4 Antibody (A02301-1) at a dilution of 1:100. Fluoro488 Conjugated Goat Anti-Rabbit IgG (Green) (Catalog # BA1127) was used as secondary antibody. The section was counterstained with DAPI (Catalog # AR1176) (Blue).



Flow Cytometry analysis of A549 cells using anti-MCM4 antibody (A02301-1).
Overlay histogram showing A549 cells stained with A02301-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-MCM4 Antibody (A02301-1) at 1:100 dilution for 30 min at 20°C. Fluoro488 conjugated goat anti-rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.