Product datasheet

Anti-MCM7 Antibody

Catalog Number: *PA1792*

BOSTER
antibody and ELISA experts
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Basic Information

Product Name	Anti-MCM7 Antibody
Gene Name	MCM7
Source	Rabbit
Clonality	Polyclonal
Isotype	IgG
Species Reactivity	human
Tested Application	WB, IHC, ICC/IF, FCM
Contents	500 ug/ml antibody with PBS, 0.02% NaN3, 1 mg/ml BSA and 50% glycerol.
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human MCM7.
Concentration	500 ug/ml
Purification	Immunogen affinity purified.
Observed MW	81 kDa
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 Immunocytochemistry/Immunofluorescence (ICC/IF): 1:50-400 Flow Cytometry (Fixed): 1:50-200 (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. 6 months 2 to 8℃ after reconstitution. Avoid repeated freezing and thawing.

Background Information

MCM7(Minichromosome Maintenance, s. Cerevisiae, homolog of, 7), also called CDC47, FORMERLY, is one of the highly conserved mini-chromosome maintenance proteins(MCM) that are essential for the initiation of eukaryotic genome replication. The MCM7 gene is mapped on 7q22.1. MCM7 plays a pivotal role in the G1/S phase transition, orchestrating the correct assembly of replication forks on chromosomal DNA and ensuring that all the genome is replicated once and not more than once at each cell cycle. The MCM7 gene contains 15 exons. The miRNAs MIR106B, MIR93, and MIR25 are clustered in a 5-prime to 3-prime orientation within intron 13. Petrocca et al.(2008) found that MCM7 and the precursors of microRNAs(miRNAs) MIR106B, MIR93, and MIR25, all of which arise from intron 13 of the MCM7 gene, were overexpressed with almost perfect correlation in 5 of 10 human

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gastric tumors.

Selected Validation Data

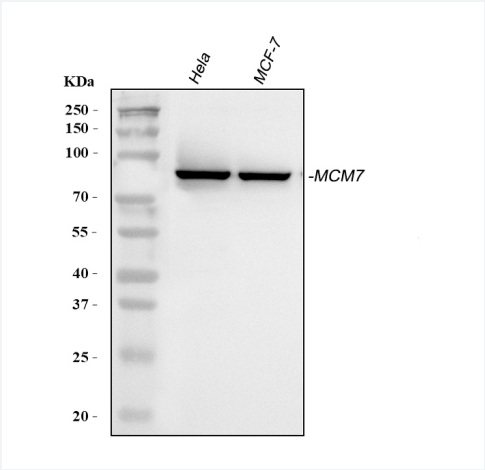

Figure 1. Western blot analysis of MCM7 using anti-MCM7 antibody (PA1792). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: Human COLO320 whole cell lysates,
Lane 2: Human SW620 whole cell lysates,
Lane 3: Human HELA whole cell lysates,
Lane 4: Human 22RV1 whole cell lysates,
Lane 5: Human 293T whole cell lysates,
Lane 6: Human U937 whole cell lysates,
Lane 7: Human JURKAT whole cell lysates,
Lane 8: Human Raji whole cell lysates.
After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-MCM7 antigen affinity purified polyclonal antibody (PA1792) 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 MCM7 at approximately 81 kDa. The expected band size for MCM7 is at 81 kDa.

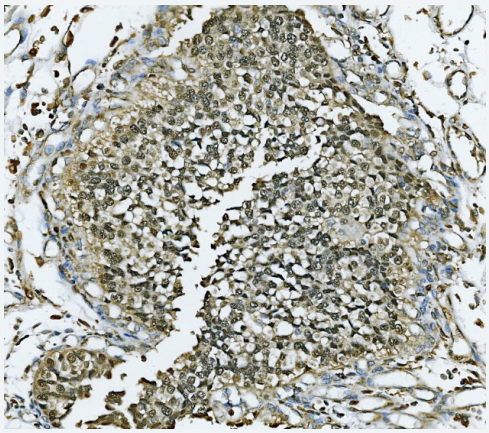

Figure 2. IHC analysis of MCM7 using anti-MCM7 antibody (PA1792).
MCM7 was detected in a paraffin-embedded section of human lung cancer tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was incubated with rabbit anti-MCM7 Antibody (PA1792) at a dilution of 1:200 and developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB (Catalog # AR1022) as the chromogen.

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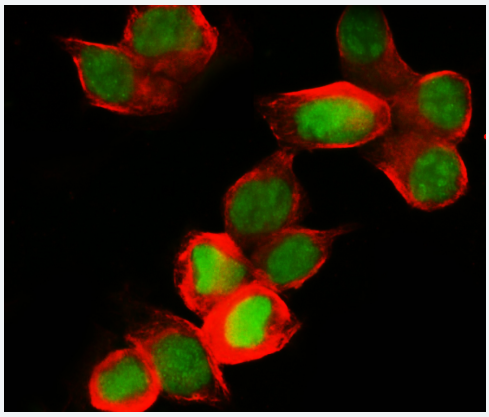

Figure 5. IF analysis of MCM7 using anti-MCM7 antibody (PA1792) and anti-Alpha Tubulin antibody (M03989-3).
MCM7 was detected in an immunocytochemical section of MCF-7 cells. The section was incubated with rabbit anti-MCM7 Antibody (PA1792) at a dilution of 1:100. Dylight488-conjugated Anti-rabbit IgG Secondary Antibody (green)(Catalog#BA1127) and Cy3-conjugated Anti-mouse IgG Secondary Antibody (red)(Catalog#BA1031) were used as secondary antibody.

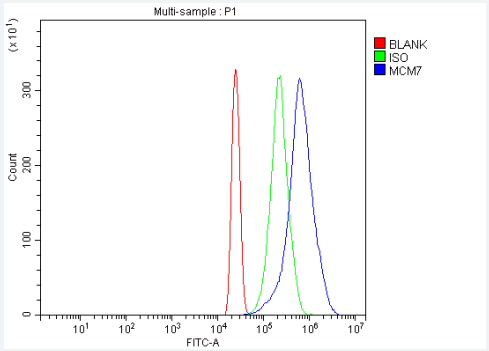

Figure 6. Flow Cytometry analysis of HL-60 cells using anti-MCM7 antibody (PA1792).
Overlay histogram showing HL-60 cells stained with PA1792 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-MCM7 Antibody (PA1792) at 1:100 dilution for 30 min at 20°C. DyLight®488 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.