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antibody and ELISA experts

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Anti-MCM5 Antibody

Catalog Number: PA1653

About MCM5

MCM5 (MINICHROMOSOME MAINTENANCE, S. CEREVISIAE, HOMOLOG OF, 5),also known as CDC46, is a protein that in humans is encoded by the MCM5 gene. MCM5 is structurally very similar to the CDC46 protein from S. cerevisiae, a protein involved in the initiation of DNA replication. And MCM5 is a member of the MCM family of chromatin-binding proteins and can interact with at least two other members of this family. The MCM5 gene is mapped on 22q12.3. The MCM5 gene contains 16 exons. The encoded protein is upregulated in the transition from the G0 to G1/S phase of the cell cycle and may actively participate in cell cycle regulation.

Overview

Product Name	Anti-MCM5 Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-MCM5 Antibody catalog # PA1653. Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	Flow Cytometry, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.
Storage Instructions	Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P33992

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human MCM5, identical to the related rat and mouse sequences.
Predicted Reactive Species	Hamster
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and ICC.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.

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Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Mouse, Rat, By Heat Western blot, 0.1-0.5ug/ml, Human, Rat, Mouse Immunocytochemistry/Immunofluorescence, 2ug/ml, Human Flow Cytometry, 1-3ug/1x10^6 cells, Human

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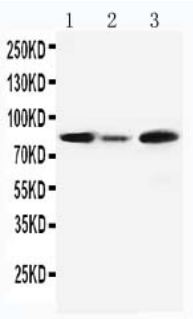
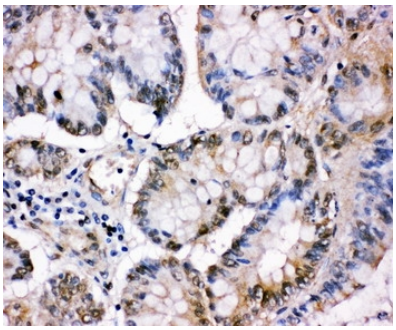
Anti-MCM5 Antibody (PA1653) Images



Anti-MCM5 antibody, PA1653, Western blotting
Lane 1: Rat Testis Tissue Lysate
Lane 2: Rat Brain Tissue Lysate Lane3: JURKAT Cell Lysate



Anti-MCM5 antibody, PA1653, IHC(P)
IHC(P): Human Intestinal Cancer Tissue

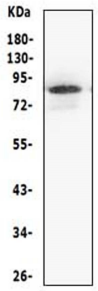


Figure 3. Western blot analysis of MCM5 using anti-MCM5 antibody (PA1653).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
Lane 1: human Jurkat whole cell lysates,
After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-MCM5 antigen affinity purified polyclonal antibody (Catalog # PA1653) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for MCM5 at approximately 82KD. The expected band size for MCM5 is at 82KD.

Figure 4. IF analysis of MCM5 using anti-MCM5 antibody (PA1653).
MCM5 was detected in immunocytochemical section of U20S cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2ug/mL rabbit anti-MCM5 Antibody (PA1653) overnight at 4°C. DyLight®594 Conjugated Goat Anti-Rabbit IgG (BA1142) was used as secondary antibody at 1:100

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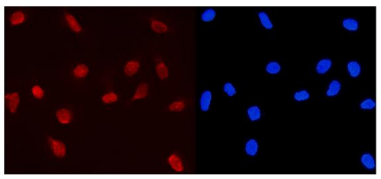

dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

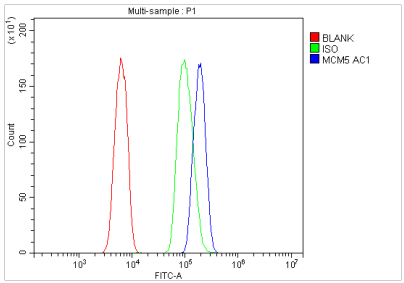

Figure 5. Flow Cytometry analysis of HL-60 cells using anti-MCM5 antibody (PA1653).
Overlay histogram showing HL-60 cells stained with PA1653 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-MCM5 Antibody (PA1653, 1ug/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.