BOSTER BIOLOGICAL TECHNOLOGY
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# Anti-MCM5 Antibody Picoband®

**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.

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## Overview

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| Product Name | Anti-MCM5 Antibody Picoband® |
| 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. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance. |
| Application | Flow Cytometry, IF, IHC, ICC, WB |
| Clonality | Polyclonal |
| Formulation | Each vial contains antibody formulated with stabilizing components, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.<br>*This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required. |
| 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 |

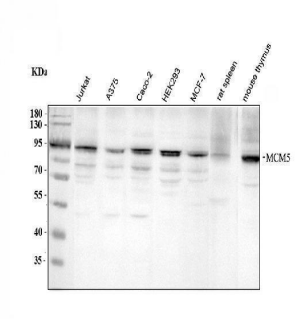
## Technical Details

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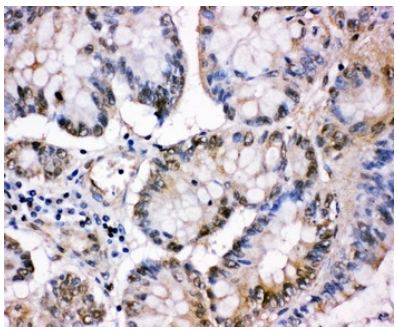
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|---|---|
| Immunogen | A synthetic peptide corresponding to a sequence at the C-terminus of human MCM5, identical to the related rat and mouse sequences. |
| Recommended Detection Systems | Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit 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. |
| Purification | Immunogen affinity purified. |
| Suggested Dilutions | Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Mouse, Rat<br>Western blot, 0.1-0.5ug/ml, Human, Rat, Mouse<br>Immunocytochemistry/Immunofluorescence, 2ug/ml, Human<br>Flow Cytometry (Fixed), 1-3ug/1x$10^6$ cells, Human<br><br>Note: For flow cytometry (FCM), suitable for fixed cells only. Not suitable for FACS or surface flow cytometry using live cells. |

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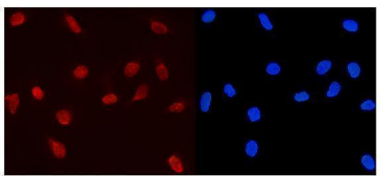
# Anti-MCM5 Antibody Picoband® (PA1653) Images




Western blot analysis of MCM5 using anti-MCM5 antibody (PA1653). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human Jurkat whole cell lysates, Lane 2: human A375 whole cell lysates, Lane 3: human CACO-2 whole cell lysates, Lane 4: human HEK293 whole cell lysates, Lane 5: human MCF-7 whole cell lysates, Lane 6: rat spleen tissue lysates, Lane 7: mouse thymus tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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 (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 (Catalog # BA1054) at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for MCM5 at approximately 95 kDa. The expected band size for MCM5 is at 82 kDa.



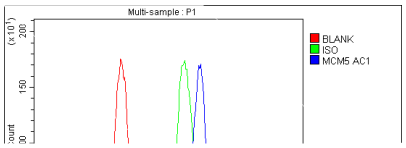
Anti-MCM5 antibody, PA1653, IHC(P)IHC(P): Human Intestinal Cancer Tissue



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 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.

Flow Cytometry analysis of HL-60 cells using anti-MCM5 antibody (PA1653). Overlay histogram showing HL-60 cells stained with PA1653 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were

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blocked with 10% normal goat serum. And then incubated with rabbit anti-MCM5 Antibody (PA1653, 1ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

## Anti-MCM5 Antibody

For Research Use Only. Not for use in diagnostic procedures.