

Anti-MCM2 Antibody

Catalog Number: PA1711

About Mcm2

MCM2 (MINICHROMOSOME MAINTENANCE, S. CEREVISIAE, HOMOLOG OF, 2), also known as MITOTIN, CDCL1 or BM28, is a human nuclear protein that plays an important role in 2 crucial steps of the cell cycle, namely, onset of DNA replication and cell division. And it is similar to members of the family of early S-phase proteins. The MCM2 gene is mapped to 3q21.3. The hexameric protein complex formed by MCM proteins is a key component of the pre-replication complex (pre-RC) and may be involved in the formation of replication forks and in the recruitment of other DNA replication related proteins. In the G0 stage, the MCM2 and MCM5 proteins were much less abundant than the MCM7 and MCM3 proteins, which suggests that the MCM proteins are not present in stoichiometric amounts and that only a proportion of these molecules actively participate in cell cycle regulation as part of MCM complexes.

Overview

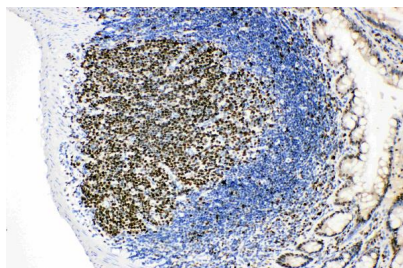
Product Name	Anti-MCM2 Antibody
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-MCM2 Antibody catalog # PA1711. Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Mouse, Rat.
Application	Flow Cytometry, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial 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	P97310

Technical Details

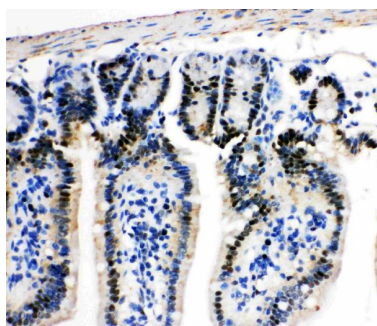
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of mouse MCM2, different from the related rat sequence by one amino acid.
Predicted Reactive Species	Hamster
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western 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.
Purification	Immunogen affinity purified.
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Western blot, 0.1-0.5ug/ml, Mouse, Rat</p> <p>Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Mouse, Rat, By Heat</p> <p>Immunocytochemistry , 0.5- 1ug/ml, Mouse, Rat</p> <p>Immunocytochemistry/Immunofluorescence, 5ug/ml, Mouse</p> <p>Flow Cytometry, 1-3ug/1x10⁶ cells, Mouse</p>

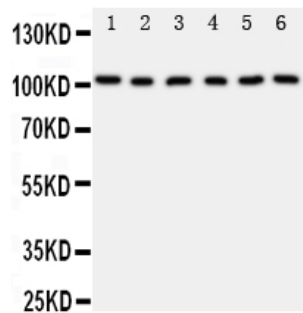
Anti-MCM2 Antibody (PA1711) Images



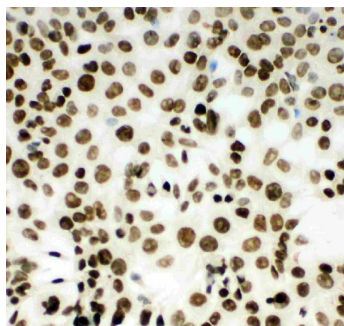
Anti-MCM2 antibody, PA1711, IHC(P)
IHC(P): Rat Intestinal Lymphocyte Tissue



Anti-MCM2 antibody, PA1711, IHC(P)
IHC(P): Mouse Intestine Tissue



Anti-MCM2 antibody, PA1711, Western blotting
All lanes: Anti MCM2 (PA1711) at 0.5ug/ml
Lane 1: Rat Testis Tissue Lysate at 50ug
Lane 2: Rat Kidney Tissue Lysate at 50ug
Lane 3: Mouse Intestine Tissue Lysate at 50ug
Lane 4: Mouse Testis Tissue Lysate at 50ug
Lane 5: Mouse Ovary Tissue Lysate at 50ug
Lane 6: Mouse Kidney Tissue Lysate at 50ug
Predicted bind size: 102KD
Observed bind size: 102KD



Anti-MCM2 antibody, PA1711, ICC
ICC: HEPA Cell

Anti-MCM2 antibody, PA1711, ICC
ICC: NIH3T3 Cell

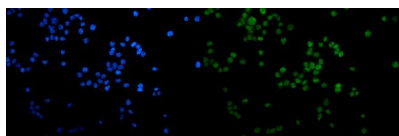
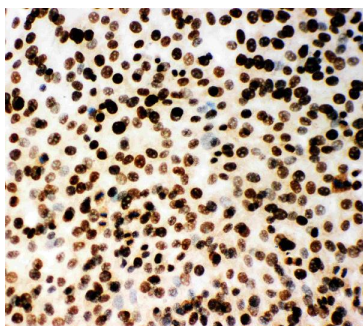


Figure 6. IF analysis of MCM2 using anti-MCM2 antibody (PA1711).

MCM2 was detected in immunocytochemical section of HEPA1-6 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 5ug/mL rabbit anti-MCM2 Antibody (PA1711) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) 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.

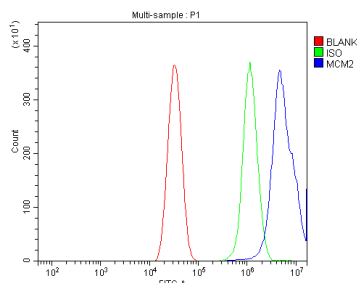


Figure 7. Flow Cytometry analysis of Neuro-2a cells using anti-MCM2 antibody (PA1711).

Overlay histogram showing Neuro-2a cells stained with PA1711 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-MCM2 Antibody (PA1711, 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 (Red line) was also used as a control.

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