# abcam

#### Product datasheet

## Anti-MCM2 antibody [SP85] ab95361

Recombinant RabMAb

#### 2 References 12 Images

#### Overview

**Product name** Anti-MCM2 antibody [SP85]

**Description** Rabbit monoclonal [SP85] to MCM2

**Host species** Rabbit

**Tested applications** Suitable for: WB, IHC-P, Flow Cyt (Intra), ICC/IF

Species reactivity Reacts with: Mouse, Rat, Human

Predicted to work with: Cow, Dog

Synthetic peptide within Human MCM2 aa 100-200. The exact sequence is proprietary. **Immunogen** 

Database link: P49736

Positive control WB: HeLa cell lysate. IHC-P: Human rectal carcinoma, human pancreas adenocarcinoma and

human prostate tissue. ICC/IF: HeLa, NIH/3T3 and C6 cells. Flow Cyt (Intra): HeLa, NIH/3T3 and

C6 cells.

**General notes** This product is FOR RESEARCH USE ONLY. For commercial use, please contact

partnerships@abcam.com.

#### **Properties**

**Form** Liquid

Storage instructions Shipped at 4°C. Store at +4°C.

Storage buffer pH: 7.60

> Preservative: 0.1% Sodium azide Constituents: PBS, 1% BSA

**Purity** Protein A/G purified

**Purification notes** Purified from TCS by protein A/G.

Clonality Monoclonal

Clone number SP85 Isotype ΙgG

**Applications** 

#### The Abpromise guarantee

Our Abpromise guarantee covers the use of ab95361 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use at an assay dependent concentration.
IHC-P		1/100. Antigen retrieval is recommended by the following method: boil tissue section in 1mM EDTA, pH 8.0 for 10 min followed by cooling at RT for 20 min.
Flow Cyt (Intra)		1/200.  ab172730 - Rabbit monoclonal lgG, is suitable for use as an isotype control with this antibody.
ICC/IF		1/50.

#### **Target**

**Function** 

Acts as component of the MCM2-7 complex (MCM complex) which is the putative replicative helicase essential for 'once per cell cycle' DNA replication initiation and elongation in eukaryotic cells. The active ATPase sites in the MCM2-7 ring are formed through the interaction surfaces of two neighboring subunits such that a critical structure of a conserved arginine finger motif is provided in trans relative to the ATP-binding site of the Walker A box of the adjacent subunit. The six ATPase active sites, however, are likely to contribute differentially to the complex helicase activity. Required for the entry in S phase and for cell division.

Sequence similarities

Belongs to the MCM family. Contains 1 MCM domain.

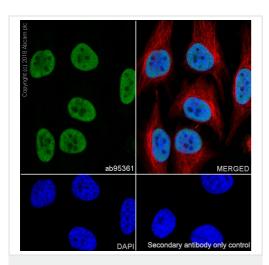
Post-translational modifications

Phosphorylated on Ser-108 by ATR in proliferating cells. Ser-108 proliferation is increased by genotoxic agents. Ser-40 is mediated by the CDC7-DBF4 and CDC7-DBF4B complexes, while Ser-53 phosphorylation is only mediated by the CDC7-DBF4 complex. Phosphorylation by the CDC7-DBF4 complex during G1/S phase is required for the initiation of DNA replication.

**Cellular localization** 

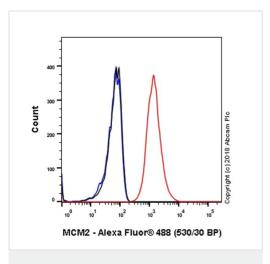
Nucleus.

### Images



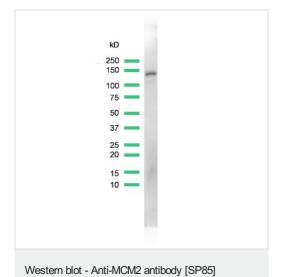
Immunocytochemistry/ Immunofluorescence - Anti-MCM2 antibody [SP85] (ab95361)

Immunocytochemistry/ Immunofluorescence analysis of HeLa (human cervix adenocarcinoma epithelial cell) cells labeling MCM2 with purified ab95361 at 1/50 (2.5  $\mu$ g/ml). Cells were fixed in 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. Cells were counterstained with <u>ab195889</u> Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5  $\mu$ g/ml). Goat anti rabbit lgG (Alexa Fluor® 488, <u>ab150077</u>) was used as the secondary antibody at 1/1000 (2  $\mu$ g/ml) dilution. DAPI was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



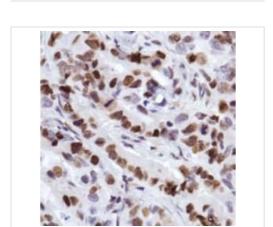
Flow Cytometry (Intracellular) - Anti-MCM2 antibody [SP85] (ab95361)

Flow cytometry analysis of HeLa (human cervix adenocarcinoma epithelial cell) labeling MCM2 with purified ab95361 at 1/200 dilution (0.615 µg/ml) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. Goat anti rabbit lgG (Alexa Fluor<sup>®</sup> 488, **ab150077**) at 1/2000 dilution was used as a secondary antibody. Isotype control - Rabbit monoclonal lgG (**ab172730**) (black). Unlableled control - Unlabelled cells (blue).



Anti-MCM2 antibody [SP85] (ab95361) at 1/100 dilution + lysate prepared from HeLa cells

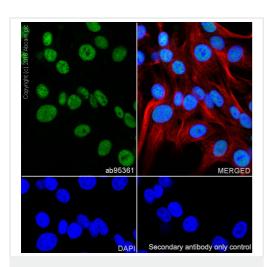
Observed band size: 130 kDa



(ab95361)

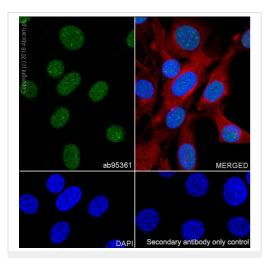
Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-MCM2 antibody [SP85] (ab95361)

ab95361, at 1/100 dilution, staining MCM2 in formalin-fixed, paraffin-embedded Human rectal carcinoma tissue by Immunohistochemistry.



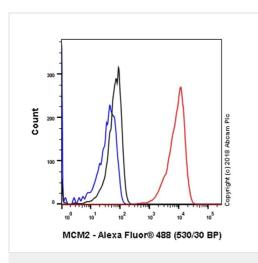
Immunocytochemistry/ Immunofluorescence - Anti-MCM2 antibody [SP85] (ab95361)

Immunocytochemistry/ Immunofluorescence analysis of C6 (rat glial tumor glial cell) cells labeling MCM2 with purified ab95361 at 1/50 (2.5  $\mu$ g/ml). Cells were fixed in 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. Cells were counterstained with <u>ab195889</u> Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor<sup>®</sup> 594) 1/200 (2.5  $\mu$ g/ml). Goat anti rabbit lgG (Alexa Fluor<sup>®</sup> 488, <u>ab150077</u>) was used as the secondary antibody at 1/1000 (2  $\mu$ g/ml) dilution. DAPI was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



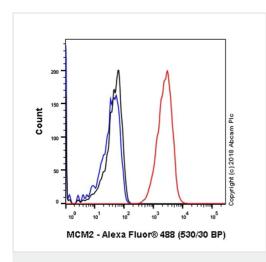
Immunocytochemistry/ Immunofluorescence - Anti-MCM2 antibody [SP85] (ab95361)

Immunocytochemistry/ Immunofluorescence analysis of NIH/3T3 (mouse embryonic fibroblast) cells labeling MCM2 with purified ab95361 at 1/50 (2.5  $\mu$ g/ml). Cells were fixed in 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. Cells were counterstained with <u>ab195889</u> Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5  $\mu$ g/ml). Goat anti rabbit lgG (Alexa Fluor® 488, <u>ab150077</u>) was used as the secondary antibody at 1/1000 (2  $\mu$ g/ml) dilution. DAPI was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



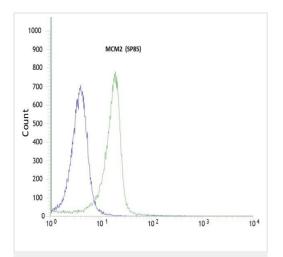
Flow Cytometry (Intracellular) - Anti-MCM2 antibody [SP85] (ab95361)

Flow cytometry analysis of C6 (rat glial tumor glial cell) labeling MCM2 with purified ab95361 at 1/200 dilution (0.615  $\mu$ g/ml) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. Goat anti rabbit lgG (Alexa Fluor® 488, **ab150077**) at 1/2000 dilution was used as a secondary antibody. Isotype control - Rabbit monoclonal lgG (**ab172730**) (black). Unlableled control - Unlabelled cells (blue).



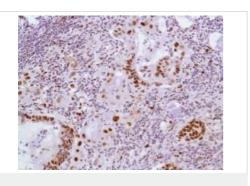
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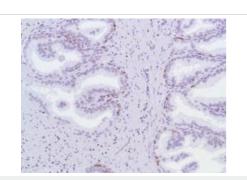
Flow cytometric analysis using rabbit anti-MCM2 (SP85) antibody ab95361(1/100) in HeLa cells (green) compared to negative control of rabbit lgG (blue).

Flow Cytometry (Intracellular) - Anti-MCM2 antibody [SP85] (ab95361)



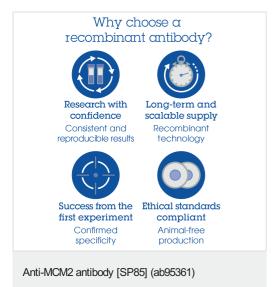
Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-MCM2 antibody [SP85] (ab95361)

ab95361,at 1/100 dilution,staining MCM2 in formalin-fixed,paraffinembedded Human pancreas adenocarcinoma tissue by Immunohistochemistry.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-MCM2 antibody [SP85] (ab95361)

ab95361,at 1/100 dilution,staining MCM2 in formalin-fixed,paraffinembedded Human prostate tissue by Immunohistochemistry.



Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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