

Product datasheet

Anti-MCM3 antibody ab4460

★★★★★ [2 Abreviews](#) [28 References](#) [7 Images](#)

Overview

Product name	Anti-MCM3 antibody
Description	Rabbit polyclonal to MCM3
Host species	Rabbit
Tested applications	Suitable for: ICC/IF, IP, WB, IHC-P
Species reactivity	Reacts with: Mouse, Human Predicted to work with: Orangutan 
Immunogen	Synthetic peptide within Human MCM3 aa 500-600. The exact immunogen sequence used to generate this antibody is proprietary information. If additional detail on the immunogen is needed to determine the suitability of the antibody for your needs, please contact our Scientific Support team to discuss your requirements. NP_002379.2 (GeneID 4172). Database link: P25205
Positive control	WB: HeLa cell RIPA extract. HeLa OHIO extract. IHC-P: Human colon carcinoma tissue. ICC/IF: HeLa cells.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7 Preservative: 0.1% Sodium azide Constituents: 0.021% PBS, 1.764% Sodium citrate, 1.815% Tris
Purity	Immunogen affinity purified
Clonality	Polyclonal

Isotype

IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab4460 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
ICC/IF		Use a concentration of 1 µg/ml.
IP		Use at 2-10 µg/mg of lysate.
WB	★★★★★ (2)	1/2000 - 1/10000. Detects a band of approximately 105 kDa (predicted molecular weight: 90 kDa).
IHC-P		1/1000 - 1/5000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

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 DNA replication and cell proliferation.

Sequence similarities

Belongs to the MCM family.
Contains 1 MCM domain.

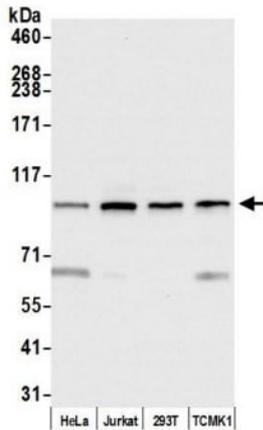
Post-translational modifications

Phosphorylated upon DNA damage, probably by ATM or ATR.

Cellular localization

Nucleus.

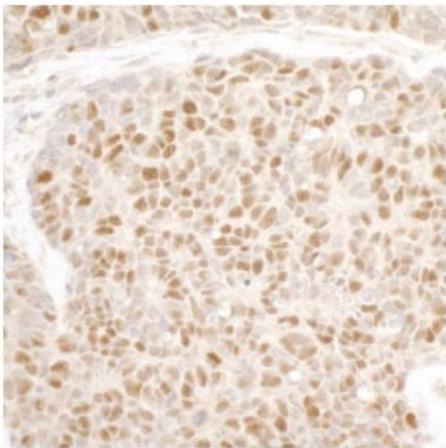
Images



Western blot - Anti-MCM3 antibody (ab4460)

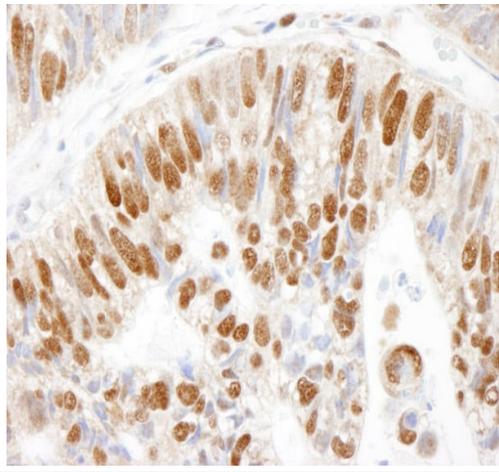
Whole cell lysate (10 μ g) from HeLa, Jurkat, HEK-293T, and TCMK-1 cells prepared using NETN lysis buffer.

ab4460 used for WB at 0.04 μ g/ml.



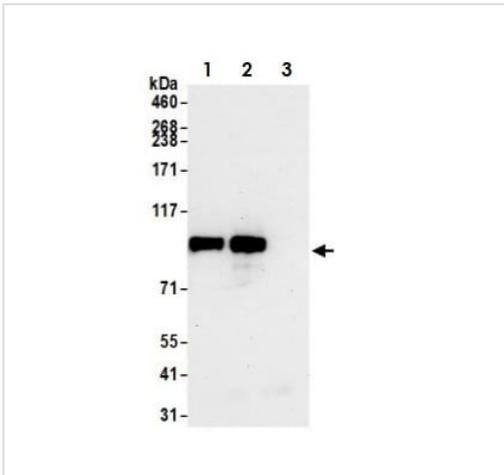
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MCM3 antibody (ab4460)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human small cell lung cancer tissue labelling MCM3 with ab4460 at 1/1000 (1 μ g/ml). Detection: DAB.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MCM3 antibody (ab4460)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human colon carcinoma tissue labelling MCM3 with ab4460 at 1/1000 (1 µg/ml). Detection: DAB.



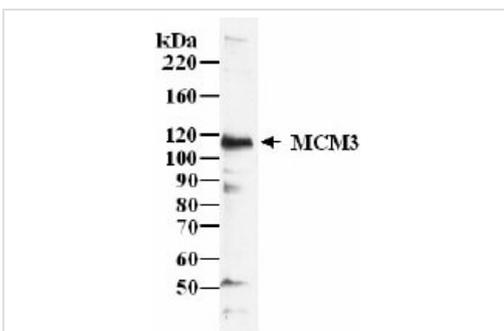
Immunoprecipitation - Anti-MCM3 antibody (ab4460)

Samples: Whole cell lysate (1.0 mg per IP reaction; 20% of IP loaded) from HeLa cells prepared using NETN lysis buffer.

Lanes 1 and 2: ab4460 used for IP at 6 µg per reaction, two lots tested.

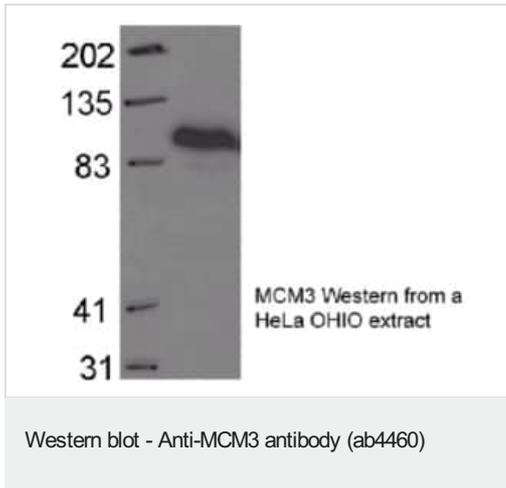
Lane 3 Control IgG.

For blotting immunoprecipitated MCM3, ab4460 was used at 0.04 µg/ml.



Western blot - Anti-MCM3 antibody (ab4460)

HeLa cell RIPA extract (50 µg) incubated with ab4460 used at 0.2 µg/ml for 1 hour. HeLa cell RIPA extract (50 µg) incubated with ab4460 used at 0.2 µg/ml for 1 hour.



WB using ab4460. Western blot analysis of ab4460 on HeLa OHIO extract.

Immunocytochemistry/ Immunofluorescence - Anti-MCM3 antibody (ab4460)

ICC/IF image of ab4460 stained HeLa cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab4460, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

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

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