abcam

Product datasheet

Anti-MCM2 antibody [EPR4120] - BSA and Azide free ab226044

Recombinant RabMAb

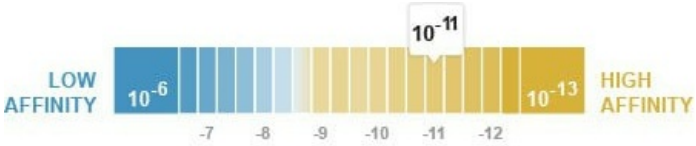
★★★★★ 1 Abreviews 16 Images

Overview

Product name	Anti-MCM2 antibody [EPR4120] - BSA and Azide free
Description	Rabbit monoclonal [EPR4120] to MCM2 - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** ICC/IF, IHC-P, WB, Flow Cyt (Intra)
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: MCF-7, Ramos, SW480, Molt-4, Jurkat and HeLa cell lysates IHC-P: Human squamous cell cervical carcinoma tissue and Human tonsil tissue ICC/IF: HeLa cells
General notes	ab226044 is the carrier-free version of **ab108935**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc. This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Dissociation constant (K_D)	$K_D = 5.80 \times 10^{-11}$ M



Learn more about K_D

Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR4120
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab226044 in the following tested applications.

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

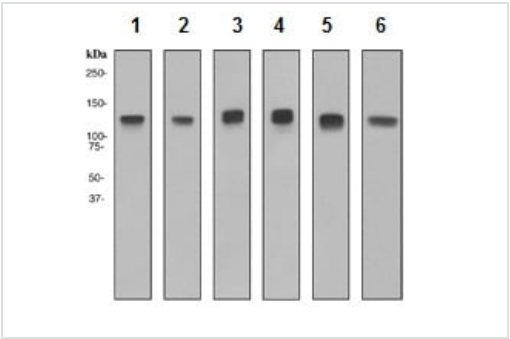
Application	Abreviews	Notes
ICC/IF	★★★★★ (1)	Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Predicted molecular weight: 102 kDa.
Flow Cyt (Intra)		Use at an assay dependent concentration.

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



Western blot - Anti-MCM2 antibody [EPR4120] - BSA and Azide free (ab226044)

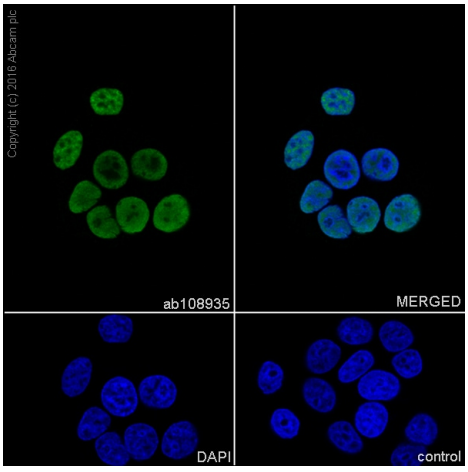
All lanes : Anti-MCM2 antibody [EPR4120] (**ab108935**) at 1/10000 dilution (unpurified)

Lane 1 : MCF-7 cell lysate
Lane 2 : Ramos cell lysate
Lane 3 : SW480 cell lysate
Lane 4 : Molt-4 cell lysate
Lane 5 : Jurkat cell lysate
Lane 6 : HeLa cell lysate

Lysates/proteins at 10 µg per lane.

Predicted band size: 102 kDa

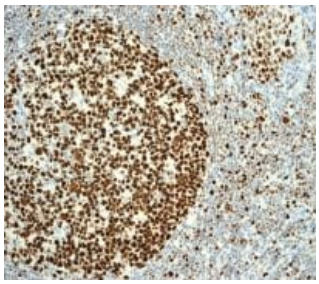
This data was developed using **ab108935**, the same antibody clone in a different buffer formulation.



Immunocytochemistry/ Immunofluorescence - Anti-MCM2 antibody [EPR4120] - BSA and Azide free (ab226044)

This data was developed using **ab108935**, the same antibody clone in a different buffer formulation.

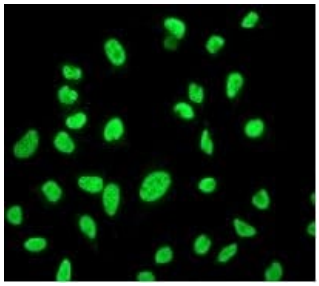
Immunocytochemistry/Immunofluorescence analysis of MCF7 (Human breast adenocarcinoma cell line) labeling MCM2 with purified **ab108935** at 1/1000. Cells were fixed with 4% PFA and permeabilized with 0.1% triton X-100. **ab150077** Goat anti rabbit IgG (Alexa Fluor® 488) at 1/1000 was used as the secondary antibody. Nuclei were counterstained with DAPI. PBS was used instead of the primary antibody as the negative control.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MCM2 antibody [EPR4120] - BSA and Azide free (ab226044)

This data was developed using **ab108935**, the same antibody clone in a different buffer formulation.

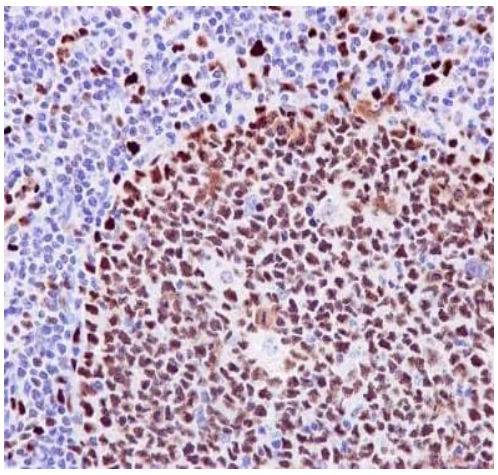
Immunohistochemical staining of MCM2 in paraffin-embedded human tonsil tissue with unpurified **ab108395**, at a 1/250 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-MCM2 antibody [EPR4120] - BSA and Azide free (ab226044)

This data was developed using **ab108935**, the same antibody clone in a different buffer formulation.

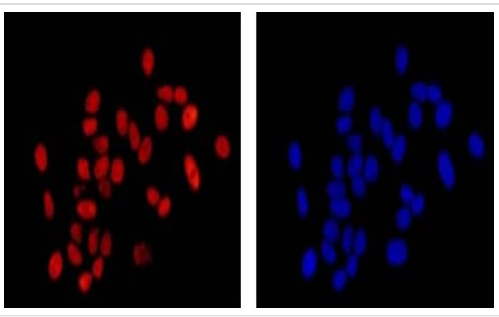
Unpurified **ab108935**, at a 1/100 dilution, staining MCM2 in HeLa cells.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MCM2 antibody [EPR4120] - BSA and Azide free (ab226044)

This data was developed using **ab108935**, the same antibody clone in a different buffer formulation.

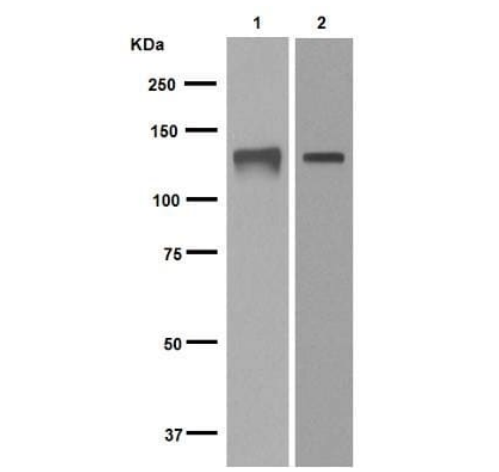
Immunohistochemical staining of paraffin embedded human tonsil with purified **ab108935** at a working dilution of 1 in 200. The secondary antibody used is a HRP polymer for rabbit IgG. The sample is counter-stained with hematoxylin. Antigen retrieval was perfomed using Tris-EDTA buffer, pH 9.0.



Immunocytochemistry/ Immunofluorescence - Anti-MCM2 antibody [EPR4120] - BSA and Azide free (ab226044)

This data was developed using **ab108935**, the same antibody clone in a different buffer formulation.

Immunofluorescent staining of MCF7 cells (fixed with 4% PFA) with purified **ab108935** at a dilution of 1/600. An Alexa Fluor® 555 goat anti-rabbit antibody was used as the secondary at a dilution of 1/200. The panel on the right shows the DAPI counter-staining.



Western blot - Anti-MCM2 antibody [EPR4120] - BSA and Azide free (ab226044)

All lanes : Anti-MCM2 antibody [EPR4120] (**ab108935**) at 1/8500 dilution (purified)

Lane 1 : HeLa cell lysate
Lane 2 : Mouse kidney tissue lysate

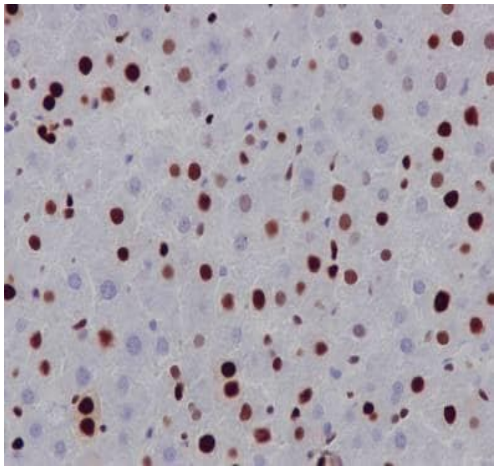
Lysates/proteins at 10 µg per lane.

Secondary
All lanes : HRP goat anti-rabbit (H+L) at 1/1000 dilution

Predicted band size: 102 kDa
Observed band size: 125 kDa

This data was developed using **ab108935**, the same antibody clone in a different buffer formulation.

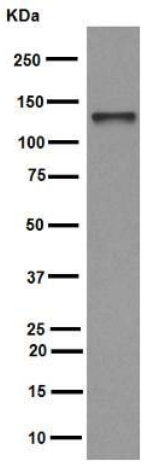
Blocking and dilution buffer: 5% NFDM/TBST.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MCM2 antibody [EPR4120] - BSA and Azide free (ab226044)

This data was developed using **ab108935**, the same antibody clone in a different buffer formulation.

Immunohistochemical staining of paraffin embedded rat liver with purified **ab108935** at a working dilution of 1 in 200. The secondary antibody used is a HRP polymer for rabbit IgG. The sample is counter-stained with hematoxylin. Antigen retrieval was perfomed using Tris-EDTA buffer, pH 9.0.



Western blot - Anti-MCM2 antibody [EPR4120] - BSA and Azide free (ab226044)

Anti-MCM2 antibody [EPR4120] (**ab108935**) at 1/8500 dilution (purified) + Jurkat cell lysate at 10 µg

Secondary

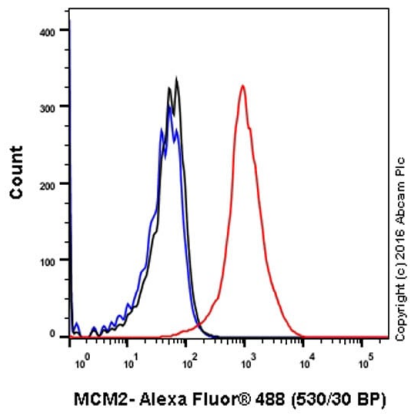
HRP goat anti-rabbit (H+L) at 1/1000 dilution

Predicted band size: 102 kDa

Observed band size: 125 kDa

This data was developed using **ab108935**, the same antibody clone in a different buffer formulation.

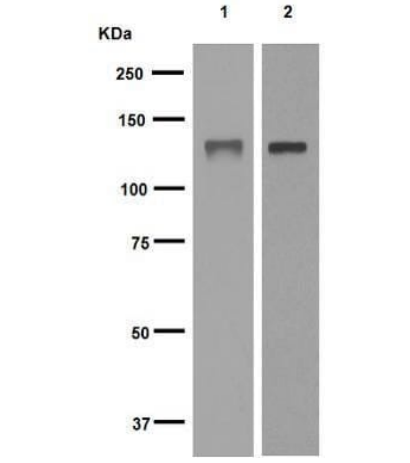
Blocking and dilution buffer: 5% NFDM/TBST.



Flow Cytometry (Intracellular) - Anti-MCM2 antibody [EPR4120] - BSA and Azide free (ab226044)

This data was developed using **ab108935**, the same antibody clone in a different buffer formulation.

Intracellular Flow Cytometry analysis of HeLa (human cervix adenocarcinoma) cells labeling MCM2 with unpurified **ab108935** at 1/160 dilution (10ug/ml) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. A Goat anti rabbit IgG (Alexa Fluor® 488) (1/2000 dilution) was used as the secondary antibody. Rabbit monoclonal IgG (Black) was used as the isotype control, cells without incubation with primary antibody and secondary antibody (Blue) was used as the unlabeled control.



Western blot - Anti-MCM2 antibody [EPR4120] - BSA and Azide free (ab226044)

All lanes : Anti-MCM2 antibody [EPR4120] (**ab108935**) at 1/5000 dilution (unpurified)

Lane 1 : HeLa cell lysate
Lane 2 : Mouse kidney tissue lysate

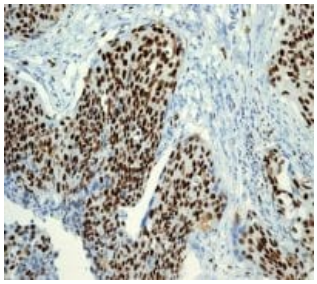
Lysates/proteins at 10 µg per lane.

Secondary
All lanes : HRP goat anti-rabbit (H+L) at 1/1000 dilution

Predicted band size: 102 kDa
Observed band size: 125 kDa

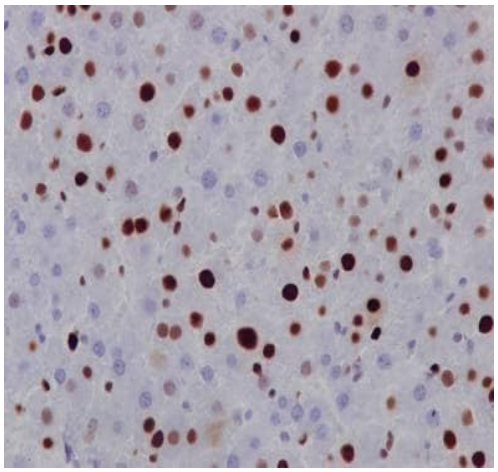
This data was developed using **ab108935**, the same antibody clone in a different buffer formulation.

Blocking and dilution buffer: 5% NFDM/TBST.



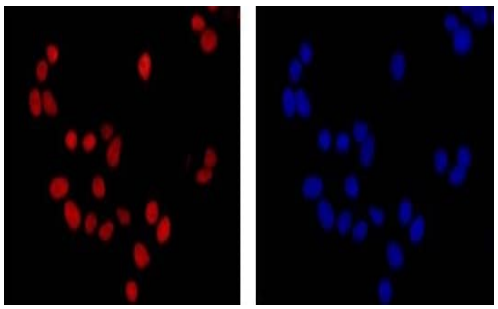
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MCM2 antibody [EPR4120] - BSA and Azide free (ab226044)

This data was developed using **ab108935**, the same antibody clone in a different buffer formulation.Immunohistochemical staining of MCM2 in paraffin-embedded human squamous cell cervical carcinoma tissue with unpurified **ab108395**, at a 1/250 dilution.



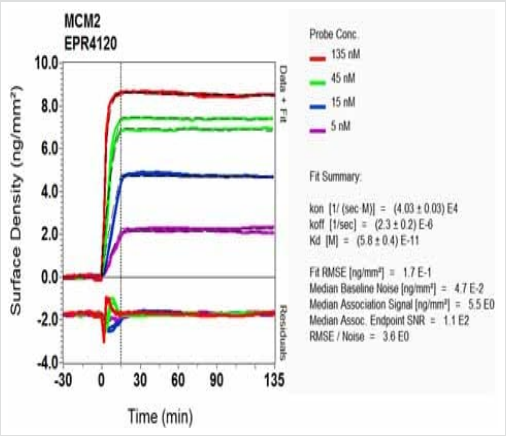
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MCM2 antibody [EPR4120] - BSA and Azide free (ab226044)

This data was developed using **ab108935**, the same antibody clone in a different buffer formulation.Immunohistochemical staining of paraffin embedded rat liver with unpurified **ab108935** at a working dilution of 1 in 100. The secondary antibody used is a HRP polymer for rabbit IgG. The sample is counter-stained with hematoxylin. Antigen retrieval was perfomed using Tris-EDTA buffer, pH 9.0.



Immunocytochemistry/ Immunofluorescence - Anti-MCM2 antibody [EPR4120] - BSA and Azide free (ab226044)

This data was developed using **ab108935**, the same antibody clone in a different buffer formulation.Immunofluorescent staining of MCF7 cells (fixed with 4% PFA) with unpurified **ab108935** at a dilution of 1/250. An Alexa Fluor® 555 goat anti-rabbit antibody was used as the secondary at a dilution of 1/200. The panel on the right shows the DAPI counter-staining.

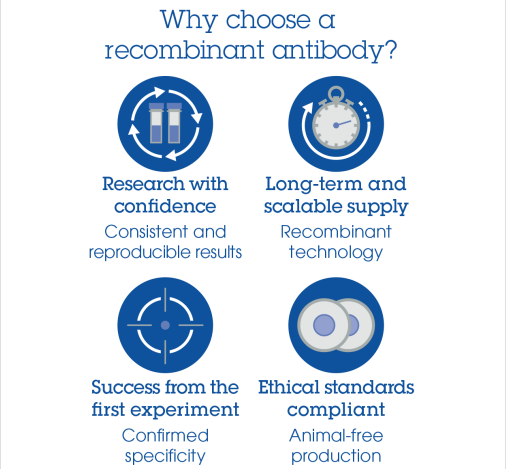


OI-RD Scanning - Anti-MCM2 antibody [EPR4120] - BSA and Azide free (ab226044)

This data was developed using **ab108935**, the same antibody clone in a different buffer formulation.Equilibrium disassociation constant (K_D)

Learn more about K_D

Click here to learn more about K_D



Anti-MCM2 antibody [EPR4120] - BSA and Azide free (ab226044)

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.com/abpromise** or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors