


## Product datasheet

# Anti-MCM2 (phospho S53) antibody ab70367

[3 References](#) [2 Images](#)

### Overview

<b>Product name</b>	Anti-MCM2 (phospho S53) antibody
<b>Description</b>	Rabbit polyclonal to MCM2 (phospho S53)
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> IHC-P, WB
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Human <b>Predicted to work with:</b> Rat, Rabbit, Horse, Chicken, Guinea pig, Cow, Dog, Turkey, Pig, Chimpanzee, Zebrafish, Rhesus monkey, Gorilla, Orangutan 
<b>Immunogen</b>	Synthetic peptide corresponding to Human MCM2 (phospho S53).
<b>Positive control</b>	Whole cell lysate from asynchronous 293T cells
<b>General notes</b>	<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&amp;As</p>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
<b>Storage buffer</b>	pH: 6.8 Preservative: 0.09% Sodium azide Constituents: 0.1% BSA, Tris buffered saline
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

### Applications

## The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab70367 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
IHC-P		1/100 - 1/500. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
WB		1/1000 - 1/2500. Detects a band of approximately 117 kDa (predicted molecular weight: 100 kDa).

## 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.

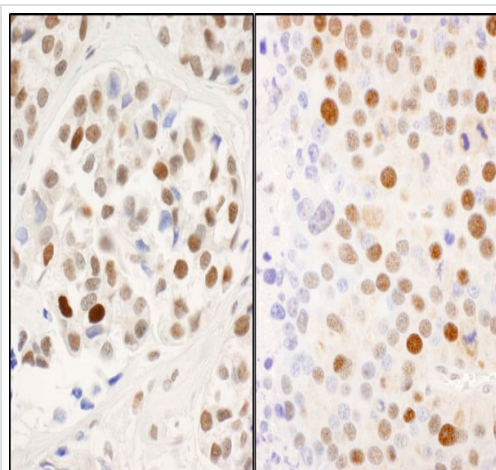
### Post-translational modifications

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

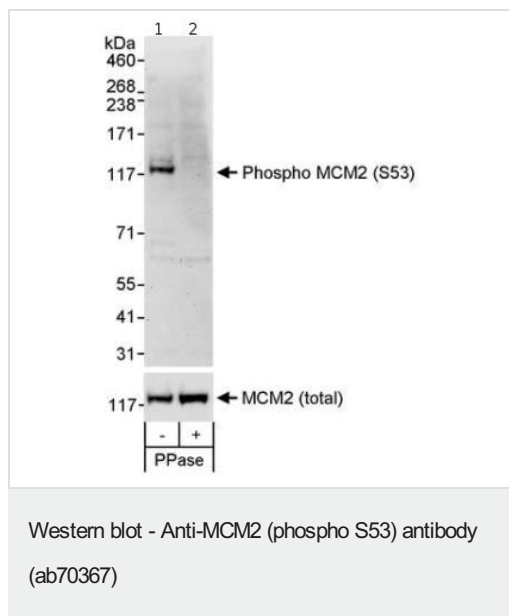
Nucleus.

## Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human breast carcinoma (left) and mouse renal cell carcinoma (right) tissues labelling MCM2 (phospho S53) with ab70367 at 1/200 (1 µg/ml). Detection: DAB.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MCM2 (phospho S53) antibody (ab70367)



**All lanes :** Anti-MCM2 (phospho S53) antibody (ab70367) at 0.1 µg/ml

**Lane 1 :** Whole cell lysate from asynchronous 293T cells

**Lane 2 :** Whole cell lysate from asynchronous 293T cells treated with a phosphatase.

Lysates/proteins at 50 µg per lane.

**Predicted band size:** 100 kDa

**Observed band size:** 117 kDa

The bottom panel shows total MCM2 staining; the blot was stripped and then blotted with rabbit anti-total MCM2 antibody at 0.1 µg/ml. Detection: Chemiluminescence with exposure times of 3 minutes (upper panel) and 10 seconds (lower panel).

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

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