

### Anti-MCAK antibody [EPR14838] ab187652

KO VALIDATED

Recombinant

RabMAb

[4 References](#) [6 Images](#)

#### Overview

Product name	Anti-MCAK antibody [EPR14838]
Description	Rabbit monoclonal [EPR14838] to MCAK
Host species	Rabbit
Tested applications	<b>Suitable for:</b> Flow Cyt (Intra), ICC/IF, WB
Species reactivity	<b>Reacts with:</b> Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	MCF7, 293T, Hela and K562 cell lysates. Hela and MCF7 cells.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</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 long term. Avoid freeze / thaw cycle.
Storage buffer	<p>pH: 7.2</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA</p>
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR14838
Isotype	IgG

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab187652 in the following tested applications.

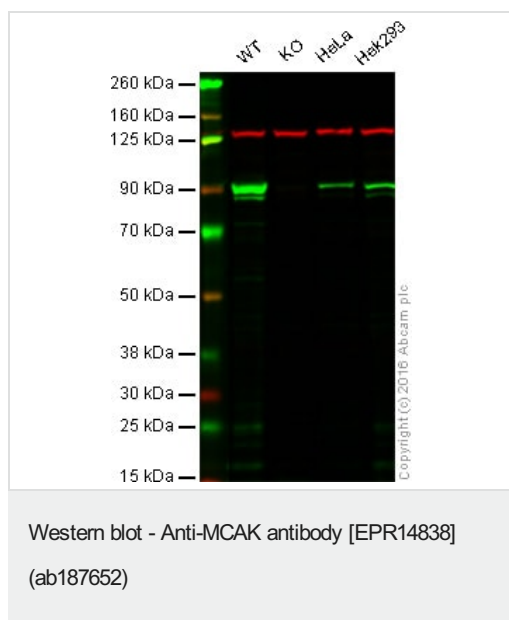
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/260. <b>ab172730</b> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
ICC/IF		1/100.
WB		1/1000 - 1/2000. Predicted molecular weight: 81 kDa.

## Target

Function	Promotes ATP-dependent removal of tubulin dimers from microtubules. Regulates the turnover of microtubules at the kinetochore and functions in chromosome segregation during mitosis.
Tissue specificity	Expressed at high levels in thymus and testis, at low levels in small intestine, the mucosal lining of colon, and placenta, and at very low levels in spleen and ovary; expression is not detected in prostate, peripheral blood Leukocytes, heart, brain, lung, liver, skeletal muscle, kidney or pancreas. Isoform 2 is testis-specific.
Sequence similarities	Belongs to the kinesin-like protein family. MCAK/KIF2 subfamily. Contains 1 kinesin-motor domain.
Developmental stage	Isoform 2 is expressed in fetal testis.
Domain	The microtubule tip localization signal (MtLS) motif; mediates interaction with MAPRE1 and targeting to the growing microtubule plus ends.
Post-translational modifications	Phosphorylated upon DNA damage, probably by ATM or ATR. Phosphorylation by STK12, regulates association with centromeres and kinetochores and the microtubule depolymerization activity.
Cellular localization	Cytoplasm > cytoskeleton. Nucleus. Chromosome > centromere. Chromosome > centromere > kinetochore. Associates with the microtubule network at the growing distal tip (the plus-end) of microtubules, probably through interaction with MTUS2/TIP150 and MAPRE1 (By similarity). Centromeric localization requires the presence of BUB1 and SGOL2.

## Images



**Lane 1:** Wild type HAP1 whole cell lysate (20 µg)

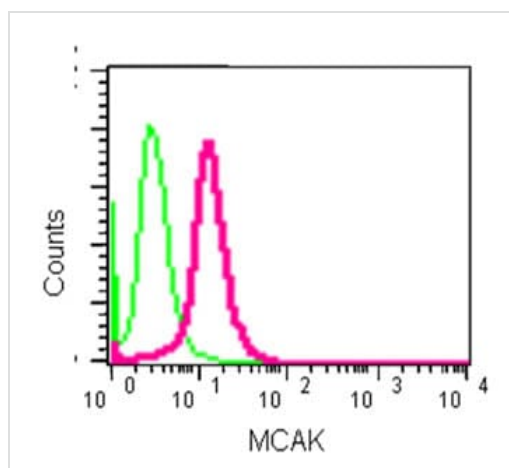
**Lane 2:** MCAK knockout HAP1 whole cell lysate (20 µg)

**Lane 3:** HeLa whole cell lysate (20 µg)

**Lane 4:** HEK293 whole cell lysate (20 µg)

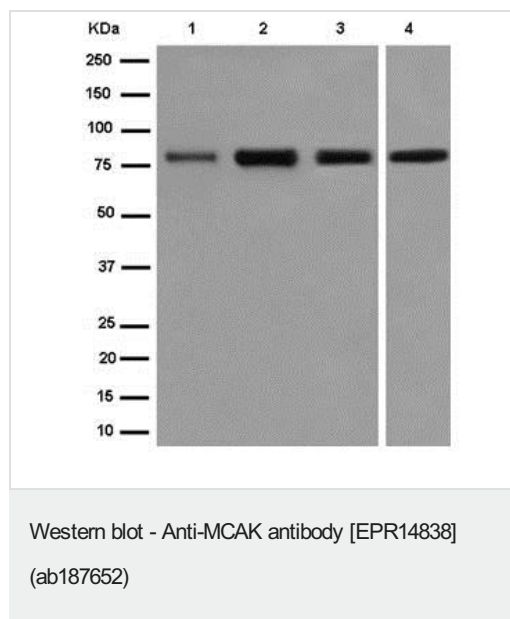
**Lanes 1 - 4:** Merged signal (red and green). Green - ab187652 observed at 90 kDa. Red - loading control, **ab18058**, observed at 130 kDa.

ab187652 was shown to specifically react with MCAK when MCAK knockout samples were used. Wild-type and MCAK knockout samples were subjected to SDS-PAGE. Ab187652 and **ab18058** (Mouse anti Vinculin loading control) were incubated overnight at 4°C at 1000 dilution and 1/10000 dilution respectively. Blots were developed with 800CW Goat anti Rabbit and 680CW Goat anti Mouse secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.



Flow Cytometry (Intracellular) - Anti-MCAK antibody  
[EPR14838] (ab187652)

Intracellular flow cytometric analysis of HeLa cells labeling MCAK with ab187652 at 1/260 dilution compared to negative control cells. Secondary antibody FITC-conjugated goat-anti-rabbit IgG used at 1/150 diution.



**All lanes** : Anti-MCAK antibody [EPR14838] (ab187652) at 1/1000 dilution

**Lane 1** : MCF7 cell lysate

**Lane 2** : 293T (Human embryonic kidney epithelial cell) cell lysate

**Lane 3** : HeLa cell lysate

**Lane 4** : K562 cell lysate

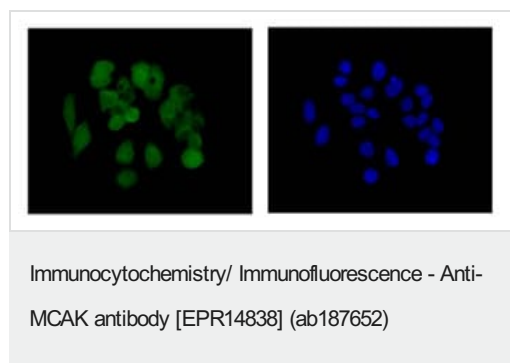
Lysates/proteins at 20 µg per lane.

### Secondary

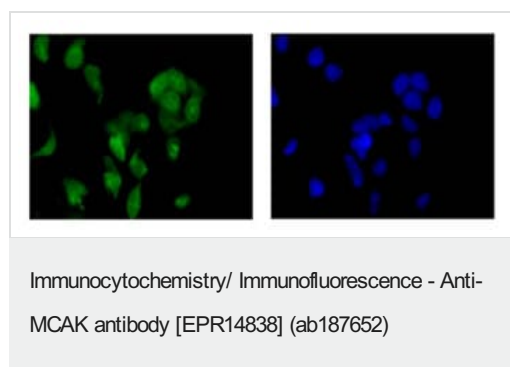
**All lanes** : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Developed using the ECL technique.

**Predicted band size:** 81 kDa



Immunofluorescence analysis of MCF7 cells labeling MCAK with ab187652 at 1/100 dilution. Goat anti rabbit IgG (Alexa Fluor®488) secondary antibody at 1/200 dilution. Counter-stained with Dapi.



Immunofluorescence analysis of HeLa cells labeling MCAK with ab187652 at 1/100 dilution. Goat anti rabbit IgG (Alexa Fluor®488) secondary antibody at 1/200 dilution. Counter-stained with Dapi.

### Why choose a recombinant antibody?



**Research with confidence**  
Consistent and reproducible results



**Long-term and scalable supply**  
Recombinant technology



**Success from the first experiment**  
Confirmed specificity



**Ethical standards compliant**  
Animal-free production

Anti-MCAK antibody [EPR14838] (ab187652)

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

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