abcam

Product datasheet

Anti-MCAK antibody ab71706

1 References 3 Images

Overview

Product name	Anti-MCAK antibody
Description	Rabbit polyclonal to MCAK
Host species	Rabbit
Specificity	Does not react with human MCAK.
Tested applications	**Suitable for:** WB, IP, IHC-P
Species reactivity	**Reacts with:** Mouse **Predicted to work with:** Rat
Immunogen	Synthetic peptide corresponding to Mouse MCAK. A region between residue 50 and 100 of mouse MCAK. GenBank: NP_608301.2 Database link: **Q922S8**
General notes	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. 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

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7 Preservative: 0.09% Sodium azide Constituents: 1.815% Tris, 1.764% Sodium citrate, 0.021% PBS
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

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The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab71706 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		1/2000 - 1/10000. Predicted molecular weight: 81 kDa.
IP		Use at 2-5 µg/mg of lysate.
IHC-P		1/500 - 1/2000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

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.

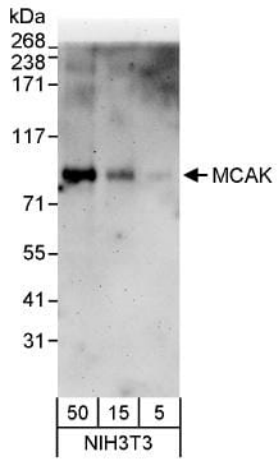
Developmental stage Isoform 2 is expressed in fetal testis.

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



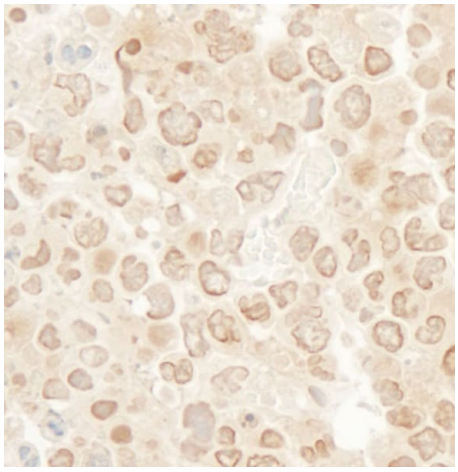
Western blot - Anti-MCAK antibody (ab71706)

All lanes : Anti-MCAK antibody (ab71706) at 0.1 µg/ml

Lane 1 : NIH3T3 whole cell lysate at 50 µg/ml
Lane 2 : NIH3T3 whole cell lysate at 15 µg/ml
Lane 3 : NIH3T3 whole cell lysate at 5 µg/ml

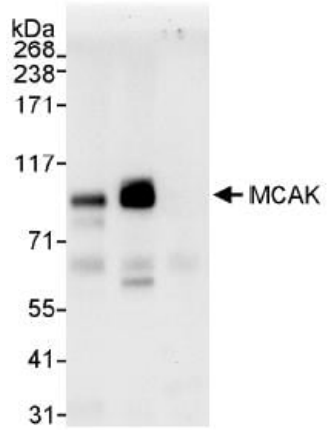
Predicted band size: 81 kDa

Exposure time: 3 minutes



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MCAK antibody (ab71706)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse hybridoma tumor tissue labelling MCAK with ab71706 at 1/1000 (1µg/ml). Detection: DAB.



Immunoprecipitation - Anti-MCAK antibody (ab71706)

MCAK antibody (ab71706) recognizing MCAK protein in NIH3T3 whole cell lysate (1 mg, 20% of IP loaded).
Lane 1: MCAK antibody (ab71706) used for IP at 3 µg/mg lysate and for WB at 1.0 µg/ml.
Lane 2: Non-Abcam MCAK antibody, specific for a downstream epitope of MCAK.
Lane 3: Control IgG.
Detection by chemiluminescence with exposure time of 30 seconds.

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