

## Product datasheet

# Anti-MST3 antibody ab236589

3 Images

### Overview

<b>Product name</b>	Anti-MST3 antibody
<b>Description</b>	Rabbit polyclonal to MST3
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> ICC/IF, IHC-P, WB
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	<p>Recombinant fragment corresponding to Human MST3 aa 1-431. Full length isoform A. Sequence:</p> <p>MAHSPVQSGLPGMQNLKADPEELFTKLEKIGKGSFGEVF            KGIDNRTQKVV            AIKIIDLEEAEDEIEDIQQEITVLSQCDSPIYTKYYGSYLKDT            KLWIIME            YLGGGSALDILLEPGLDETQIATILREILKGLDYHSEKKIHR            DIKAANV            LLSEHGVEVKLADFGVAGQLTDTQIKRNTFVGTFFWMAPE            VIKQSAYDSKA            DIWSLGITAIELARGEPPHSELHPMKVLFILIPKNNPPTLEGN            YSKPLKEF            VEACLNKEPSFRPTAKELLKHKFILRNAKKTSYLTELIDRYK            RWKAEQSH            DDSSSESDAETDGGASGGSDSGDWIFTIREKDPKNLEN            GALQPSDLDRN            KMKDIPKRPFSQLSTIISPLFAELKEKSQACGGNLGSIEE            LRGAYLAE EACPGISDTMVAQLVQRLQRYSLSGGGTSSH</p>

Database link: [Q9Y6E0](#)

[Run BLAST with](#)

[Run BLAST with](#)

**Positive control** WB: HeLa, A-375 and HepG2 cell lysate. IHC-P: Human colon cancer tissue. ICC/IF: HeLa cells.

**General notes** Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.

Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.

We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in

our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.

We are also updating the applications & species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

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, as well as customer reviews and Q&As.

## Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	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.
<b>Storage buffer</b>	pH: 7.40 Constituents: PBS, 50% Glycerol (glycerin, glycerine), 0.03% Proclin 300
<b>Purity</b>	Protein G purified
<b>Purification notes</b>	Purity >95%.
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

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Our [Abpromise guarantee](#) covers the use of **ab236589** 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		1/50 - 1/500.
IHC-P		1/100 - 1/500.
WB		1/500 - 1/5000.

## Target

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<b>Function</b>	Serine/threonine-protein kinase that acts on both serine and threonine residues and promotes apoptosis in response to stress stimuli and caspase activation. Mediates oxidative-stress-induced cell death by modulating phosphorylation of JNK1-JNK2 (MAPK8 and MAPK9), p38 (MAPK11, MAPK12, MAPK13 and MAPK14) during oxidative stress. Plays a role in a staurosporine-induced caspase-independent apoptotic pathway by regulating the nuclear
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translocation of AIFM1 and ENDOG and the DNase activity associated with ENDOG. Phosphorylates STK38L on 'Thr-442' and stimulates its kinase activity. Regulates cellular migration with alteration of PTPN12 activity and PXN phosphorylation: phosphorylates PTPN12 and inhibits its activity and may regulate PXN phosphorylation through PTPN12. May act as a key regulator of axon regeneration in the optic nerve and radial nerve.

#### Tissue specificity

Isoform A is ubiquitous. Isoform B is expressed in brain with high expression in hippocampus and cerebral cortex.

#### Sequence similarities

Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. STE20 subfamily. Contains 1 protein kinase domain.

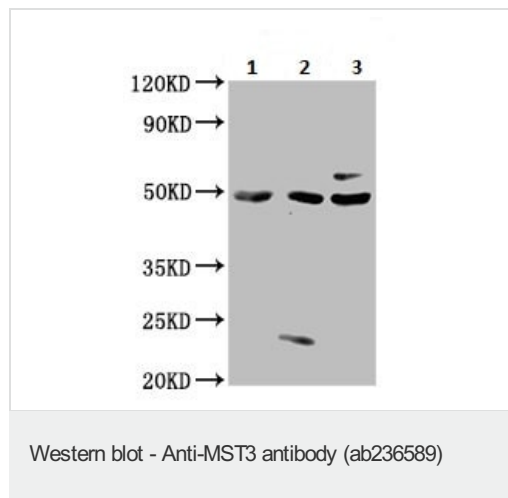
#### Post-translational modifications

Proteolytically processed by caspases during apoptosis. Proteolytic cleavage results in kinase activation, nuclear translocation of the truncated form (MST3/N) and the induction of apoptosis. Isoform B is activated by phosphorylation by PKA. Oxidative stress induces phosphorylation. Activated by autophosphorylation at Thr-190 and phosphorylation at this site is essential for its function. Manganese, magnesium and cobalt-dependent autophosphorylation is mainly on threonine residues while zinc-dependent autophosphorylation is on both serine and threonine residues.

#### Cellular localization

Cytoplasm. Nucleus. Membrane. The truncated form (MST3/N) translocates to the nucleus. Co-localizes with STK38L in the membrane.

## Images



**All lanes :** Anti-MST3 antibody (ab236589) at 1/500 dilution

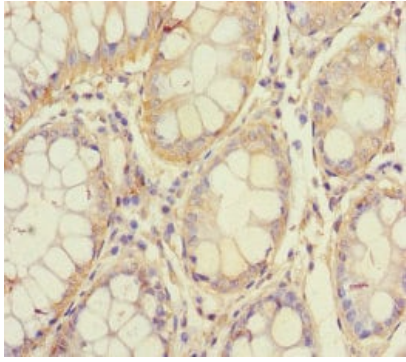
**Lane 1 :** HeLa (human epithelial cell line from cervix adenocarcinoma) cell lysate

**Lane 2 :** A-375 (human malignant melanoma cell line) cell lysate

**Lane 3 :** HepG2 (human liver hepatocellular carcinoma cell line) cell lysate

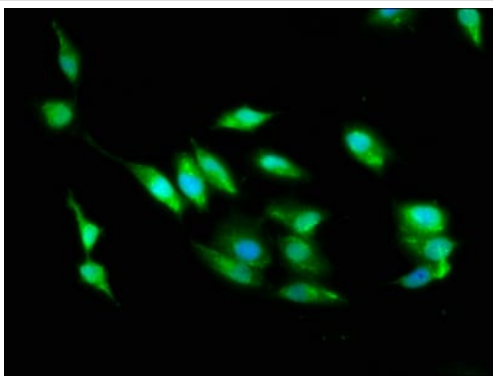
#### Secondary

**All lanes :** Goat polyclonal to rabbit IgG at 1/50000 dilution



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MST3 antibody (ab236589)

Paraffin-embedded human colon cancer tissue stained for MST3 using ab236589 at 1/100 dilution in immunohistochemical analysis.



Immunocytochemistry/ Immunofluorescence - Anti-MST3 antibody (ab236589)

4% formaldehyde-fixed, 0.2% Triton X-100 permeabilized HeLa (Human epithelial cell line from cervix adenocarcinoma) cells stained for MST3 using ab236579 at 1/100 dilution in ICC/IF.

Cells were blocked in 10% normal goat serum and incubated with primary antibody overnight at 4°C. Secondary antibody was Alexa Fluor®488-conjugated goat anti-rabbit IgG (H+L).

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

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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.

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