

**MST-2/Krs-1 Antibody**  
**Rabbit Polyclonal Antibody**  
**Catalog # ABV10531****Specification**

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**MST-2/Krs-1 Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">Q13188</a>
Other Accession	<a href="#">AAB17261</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	56301

**MST-2/Krs-1 Antibody - Additional Information****Gene ID** 6788**Application & Usage**

**Western blotting (0.5-4 µg/ml). The optimal concentrations should be determined individually**

**Other Names**

MST-2 , MST2 , STK3 , FLJ90748 , KRS1

**Target/Specificity**

MST-2/Krs-1

**Antibody Form**

Liquid

**Appearance**

Colorless liquid

**Formulation**

100 µg (0.5 mg/ml) protein A affinity purified rabbit polyclonal antibody in phosphate-buffered saline (PBS) containing 30% glycerol, 1% BSA, and 0.02% thimerosal.

**Handling**

The antibody solution should be gently mixed before use.

**Reconstitution & Storage**

-20 °C

**Background Descriptions****Precautions**

MST-2/Krs-1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## MST-2/Krs-1 Antibody - Protein Information

**Name** STK3

**Synonyms** KRS1, MST2

### Function

Stress-activated, pro-apoptotic kinase which, following caspase-cleavage, enters the nucleus and induces chromatin condensation followed by internucleosomal DNA fragmentation. Key component of the Hippo signaling pathway which plays a pivotal role in organ size control and tumor suppression by restricting proliferation and promoting apoptosis. The core of this pathway is composed of a kinase cascade wherein STK3/MST2 and STK4/MST1, in complex with its regulatory protein SAV1, phosphorylates and activates LATS1/2 in complex with its regulatory protein MOB1, which in turn phosphorylates and inactivates YAP1 oncoprotein and WWTR1/TAZ (PubMed:<a href="http://www.uniprot.org/citations/23972470" target="\_blank">23972470</a>). Phosphorylation of YAP1 by LATS2 inhibits its translocation into the nucleus to regulate cellular genes important for cell proliferation, cell death, and cell migration. STK3/MST2 and STK4/MST1 are required to repress proliferation of mature hepatocytes, to prevent activation of facultative adult liver stem cells (oval cells), and to inhibit tumor formation. Phosphorylates NKX2-1 (By similarity). Phosphorylates NEK2 and plays a role in centrosome disjunction by regulating the localization of NEK2 to centrosome, and its ability to phosphorylate CROCC and CEP250 (PubMed:<a href="http://www.uniprot.org/citations/21723128" target="\_blank">21723128</a>). In conjunction with SAV1, activates the transcriptional activity of ESR1 through the modulation of its phosphorylation. Positively regulates RAF1 activation via suppression of the inhibitory phosphorylation of RAF1 on 'Ser-259'. Phosphorylates MOBKL1A and RASSF2. Phosphorylates MOBKL1B on 'Thr-74'. Acts cooperatively with MOBKL1B to activate STK38.

### Cellular Location

Cytoplasm. Nucleus. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Note=The caspase-cleaved form cycles between nucleus and cytoplasm (PubMed:19525978, PubMed:11278283). Phosphorylation at Thr-117 leads to inhibition of nuclear translocation (PubMed:19525978)

### Tissue Location

Expressed at high levels in adult kidney, skeletal and placenta tissues and at very low levels in adult heart, lung and brain tissues.

## MST-2/Krs-1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## MST-2/Krs-1 Antibody - Images

## MST-2/Krs-1 Antibody - Background

Krs-1 protein exhibits stress-induced activity in response to staurosporine and okadaic acid. When the kinase-inactive mutant form of MST/Krs protein was overexpressed in cytotrienin A-sensitive HL-60 cells, the cytotrienin A-induced apoptosis was partially inhibited