

**Anti-STK3/Mst2 Rabbit Monoclonal Antibody**  
**Catalog # ABO13400****Specification****Anti-STK3/Mst2 Rabbit Monoclonal Antibody - Product Information**

|                   |                          |
|-------------------|--------------------------|
| Application       | WB, IHC, IF, ICC, IP, FC |
| Primary Accession | <a href="#">Q13188</a>   |
| Host              | Rabbit                   |
| Isotype           | Rabbit IgG               |
| Reactivity        | Rat, Human, Mouse        |
| Clonality         | Monoclonal               |
| Format            | Liquid                   |

**Description**

Anti-STK3/Mst2 Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF, IP, Flow Cytometry applications. This antibody reacts with Human, Mouse, Rat.

**Anti-STK3/Mst2 Rabbit Monoclonal Antibody - Additional Information**

**Gene ID** 6788

**Other Names**

Serine/threonine-protein kinase 3, 2.7.11.1, Mammalian STE20-like protein kinase 2, MST-2, STE20-like kinase MST2, Serine/threonine-protein kinase Krs-1, Serine/threonine-protein kinase 3 36kDa subunit, MST2/N, Serine/threonine-protein kinase 3 20kDa subunit, MST2/C, STK3 ([http://www.genenames.org/cgi-bin/gene\\_symbol\\_report?hgnc\\_id=11406](http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=11406))  
HGNC:11406

**Calculated MW**

56301 MW KDa

**Application Details**

WB 1:1000-1:5000<br>IHC 1:50-1:100<br>ICC/IF 1:50-1:100<br>IP 1:50<br>FC 1:50

**Subcellular Localization**

Cytoplasm. Nucleus. The caspase-cleaved form cycles between nucleus and cytoplasm (By similarity). Phosphorylation at Thr-117 leads to inhibition of nuclear translocation..

**Tissue Specificity**

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

**Contents**

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

**Immunogen**

A synthesized peptide derived from human STK3

**Purification**

Affinity-chromatography

Storage

**Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.****Anti-STK3/Mst2 Rabbit Monoclonal Antibody - Protein Information****Name** STK3 ([HGNC:11406](#))**Function**

Stress-activated, pro-apoptotic kinase which, following caspase-cleavage, enters the nucleus and induces chromatin condensation followed by internucleosomal DNA fragmentation (PubMed:<a href="http://www.uniprot.org/citations/11278283" target="\_blank">11278283</a>, PubMed:<a href="http://www.uniprot.org/citations/8566796" target="\_blank">8566796</a>, PubMed:<a href="http://www.uniprot.org/citations/8816758" target="\_blank">8816758</a>). 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/15688006" target="\_blank">15688006</a>, PubMed:<a href="http://www.uniprot.org/citations/16930133" target="\_blank">16930133</a>, PubMed:<a href="http://www.uniprot.org/citations/23972470" target="\_blank">23972470</a>, PubMed:<a href="http://www.uniprot.org/citations/28087714" target="\_blank">28087714</a>, PubMed:<a href="http://www.uniprot.org/citations/29063833" target="\_blank">29063833</a>, PubMed:<a href="http://www.uniprot.org/citations/30622739" target="\_blank">30622739</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 (PubMed:<a href="http://www.uniprot.org/citations/15688006" target="\_blank">15688006</a>, PubMed:<a href="http://www.uniprot.org/citations/16930133" target="\_blank">16930133</a>, PubMed:<a href="http://www.uniprot.org/citations/23972470" target="\_blank">23972470</a>, PubMed:<a href="http://www.uniprot.org/citations/28087714" target="\_blank">28087714</a>). 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/21076410" target="\_blank">21076410</a>, 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 (PubMed:<a href="http://www.uniprot.org/citations/21104395" target="\_blank">21104395</a>). Positively regulates RAF1 activation via suppression of the inhibitory phosphorylation of RAF1 on 'Ser-259' (PubMed:<a href="http://www.uniprot.org/citations/20212043" target="\_blank">20212043</a>). Phosphorylates MOBKL1A and RASSF2 (PubMed:<a href="http://www.uniprot.org/citations/19525978" target="\_blank">19525978</a>). Phosphorylates MOBKL1B on 'Thr- 74'. Acts cooperatively with MOBKL1B to activate STK38 (PubMed:<a href="http://www.uniprot.org/citations/18328708" target="\_blank">18328708</a>, PubMed:<a href="http://www.uniprot.org/citations/18362890" target="\_blank">18362890</a>).

**Cellular Location**

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

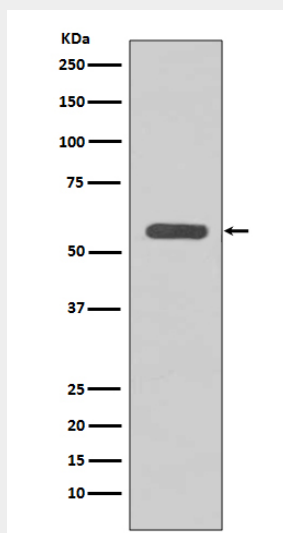
**Tissue Location**

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

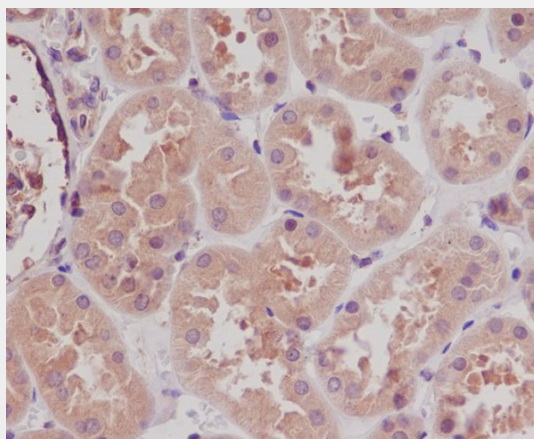
**Anti-STK3/Mst2 Rabbit Monoclonal Antibody - Protocols**

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](#)

**Anti-STK3/Mst2 Rabbit Monoclonal Antibody - Images**

Western blot analysis of STK3 expression in HeLa cell lysate.



Immunohistochemical analysis of paraffin-embedded human kidney, using STK3 Antibody.