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STK3 (36kDa subunit) Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # Azb10042a

Specification

STK3 (36kDa subunit) Antibody (Center) - Product Information

Application	**WB,E**
Primary Accession	Q13188
Other Accession	Q7ZUQ3
Reactivity	**Human, Zebrafish**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**

STK3 (36kDa subunit) Antibody (Center) - Additional Information

Gene ID 6788

Other Names
Serine/threonine-protein kinase 3, Serine/threonine-protein kinase 3 36kDa subunit, MST2/N, Serine/threonine-protein kinase 3 20kDa subunit, MST2/C, stk3

Target/Specificity
This STK3 (36kDa subunit) antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 228-252 amino acids from the central region of human stk3 (36kDa subunit).

Dilution
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
STK3 (36kDa subunit) Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

STK3 (36kDa subunit) Antibody (Center) - 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:11278283, PubMed:8566796, PubMed:8816758). 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:15688006, PubMed:16930133, PubMed:23972470, PubMed:28087714, PubMed:29063833, PubMed:30622739). 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:15688006, PubMed:16930133, PubMed:23972470, PubMed:28087714). 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:21076410, PubMed:21723128). In conjunction with SAV1, activates the transcriptional activity of ESR1 through the modulation of its phosphorylation (PubMed:21104395). Positively regulates RAF1 activation via suppression of the inhibitory phosphorylation of RAF1 on 'Ser-259' (PubMed:20212043). Phosphorylates MOBKL1A and RASSF2 (PubMed:19525978). Phosphorylates MOBKL1B on 'Thr- 74'. Acts cooperatively with MOBKL1B to activate STK38 (PubMed:18328708, PubMed:18362890).

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.

STK3 (36kDa subunit) Antibody (Center) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

STK3 (36kDa subunit) Antibody (Center) - Images

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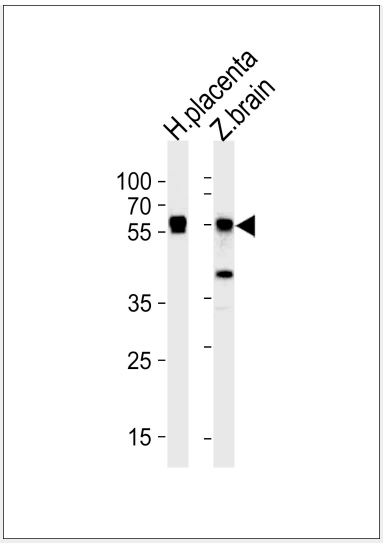

Western blot analysis of lysates from human placenta and zebra fish brain tissue (from left to right),using STK3 (36kDa subunit) Antibody (Center)(Cat. #Azb10042a).Azb10042a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody.Lysates at 35ug per lane.

STK3 (36kDa subunit) Antibody (Center) - Background

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. Phosphorylation of yap1 by lats2 inhibits its translocation into the nucleus to regulate cellular genes important for cell proliferation, cell death, and cell migration (By similarity).