

Rabbit STK3 Polyclonal Antibody | anti-STK3 antibody

Phospho-STK3 (Ser316) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329410	Rabbit	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%)	ELISA, Western Blot

PRODUCT SYNONYMS

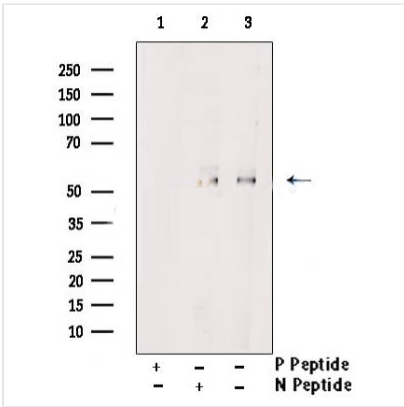
STK3; Polyclonal Antibody; Phospho-STK3 (Ser316) Antibody; 0610042I06Rik; EC 2.7.11.1; FLJ90748; KB 1458E12.1; Kinase responsive to stress 1; KRS1; Mammalian STE20 like protein kinase 2; Mammalian STE20-like protein kinase 2; Mammalian sterile 20-like 2; Mess1; MST; MST-2; MST2; Mst3; Serine/threonine kinase 3 (STE20 homolog; yeast); Serine/threonine kinase 3 (Ste20; yeast homolog); Serine/threonine kinase 3; Serine/threonine protein kinase 3; Serine/threonine protein kinase Krs1; Serine/threonine-protein kinase 3; Serine/threonine-protein kinase Krs-1; STE20 like kinase MST2; STE20-like kinase MST2; Stk3; STK3_HUMAN; wu:fc19e11; zgc:55383; anti-STK3 antibody

PRODUCT SPECIFICATIONS

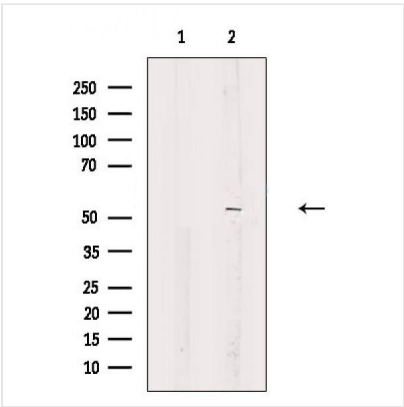
Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-STK3 (Ser316) Antibody detects endogenous levels of STK3 only when phosphorylated at Ser316. Tissue Specificity: Expressed at high levels in adult kidney, skeletal and placenta tissues and at very low levels in adult heart, lung and brain tissues.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-STK3 antibody	ELISA (Peptide ELISA), WB (Western Blot)
Immunogen	A synthesized peptide derived from human STK3 around the phosphorylation site of Ser316.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Phosphorylation at Thr-117 and Thr-384 by PKB/AKT1, leads to inhibition of its: cleavage, kinase activity, autophosphorylation at Thr-180, binding to RASSF1 and nuclear translocation, and increase in its binding to RAF1. Proteolytically cleaved by caspase-3 during apoptosis. Proteolytic cleavage results in kinase activation and nuclear translocation of the truncated form (MST1/N).
Subunit Structure	Homodimer; mediated via the coiled-coil region. Interacts with NORE1, which inhibits autoactivation (By similarity). Interacts with and stabilizes SAV1. Interacts with RAF1, which prevents dimerization and phosphorylation. Interacts with RASSF1. Interacts (via SARAH domain) with isoform 1 of NEK2. Interacts with ESR1 only in the presence of SAV1. Interacts with PKB/AKT1. Forms a tripartite complex with MOBKL1B and STK38. Interacts with RASSF2 (via SARAH domain). Interacts with DLG5 (via PDZ domain 3). Interacts with LATS1; this interaction is inhibited in the presence of DLG5. Interacts with MARK3 in the presence of DLG5.
Similarity	Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. STE20 subfamily.

Subcellular Location	Cytoplasm. Nucleus. Note: The caspase-cleaved form cycles between nucleus and cytoplasm (By similarity). Phosphorylation at Thr-117 leads to inhibition of nuclear translocation.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



WB (Western Blot)
Western blot analysis of extracts from HeLa, using Phospho-MST2(Ser316) Antibody. Lane1 was treated with phospho-blocking peptide, Lane2 was treated with non-phospho-blocking peptide.



WB (Western Blot)
Western blot analysis of extracts from Hela cells(H2O2 treatment), using Phospho-STK3 (Ser316) Antibody. The lane on the left was treated with blocking peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-STK3 antibody	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. 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. 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.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	372622373
NCBI GeneID	6788
NCBI Accession #	NP_001243241.1
NCBI GenBank Nucleotide #	NM_001256312.1
UniProt Accession #	Q13188; Q15445; Q15801; Q96FM6; A8K722; B3KYA7
Molecular Weight	59,462 Da
NCBI Official Full Name	serine/threonine-protein kinase 3 isoform 2
NCBI Official Synonym Full Names	serine/threonine kinase 3
NCBI Official Symbol	STK3

NCBI Official Synonym Symbols	KRS1; MST2
NCBI Protein Information	serine/threonine-protein kinase 3
UniProt Protein Name	Serine/threonine-protein kinase 3
UniProt Gene Name	STK3
UniProt Synonym Gene Names	KRS1; MST2; MST-2; MST2/N; MST2/C

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/stk3-antibody-peptide-elisa-western-blot-elisa/329410>