

Rabbit anti-Human STK4 Polyclonal Antibody | anti-STK4 antibody

STK4 Antibody

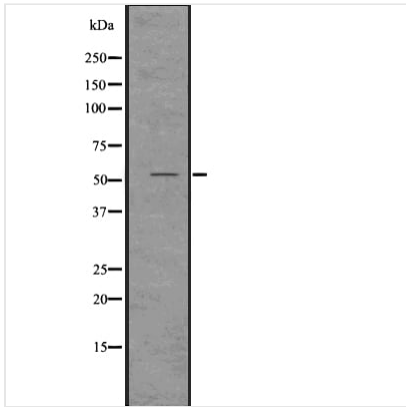
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA327285	Rabbit	Human	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

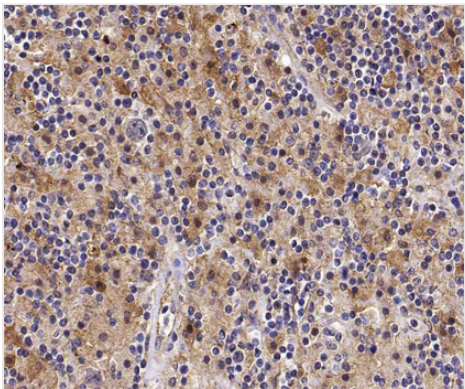
STK4; Polyclonal Antibody; STK4 Antibody; Kinase responsive to stress; Krs2; Mammalian STE20 like protein kinase 1; Mammalian STE20-like protein kinase 1; Mammalian sterile 20 like 1; MST-1; MST1; Serine/threonine kinase 4; Serine/threonine protein kinase Krs 2; Serine/threonine-protein kinase 4; Serine/threonine-protein kinase Krs-2; STE20 like kinase MST1; STE20-like kinase MST1; STK4_HUMAN; TIIAC; YSK3; anti-STK4 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	IgG
Specificity	STK4 antibody detects endogenous levels of total STK4
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	487
Applicable Applications for anti-STK4 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human STK4
Subcellular Location	Cytoplasm. Nucleus. The caspase-cleaved form cycles between the nucleus and cytoplasm.
Tissue Specificity	Expressed in prostate cancer and levels increase from the normal to the malignant state (at protein level). Ubiquitously expressed.
Predicted Cross Reactivity	Pig, Bovine, Horse, Sheep, Rabbit, Dog, Chicken
Similarity	Pig (92%), Bovine (92%), Horse (92%), Sheep (92%), Rabbit (83%), Dog (92%), Chicken (92%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



WB (Western Blot)
Western blot analysis of STK4 using HT29 whole lysates.



IHC (Immunohistochemistry)
AAA327285 at 1/100 staining human Lymph node tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

ADDITIONAL INFORMATION

Related Product Information for anti-STK4 antibody	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. 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 (By similarity). Phosphorylates 'Ser-14' of histone H2B (H2BS14ph) during apoptosis. Phosphorylates FOXO3 upon oxidative stress, which results in its nuclear translocation and cell death initiation. Phosphorylates MOBKL1A, MOBKL1B and RASSF2. Phosphorylates TNNT3 (cardiac Tn-I) and alters its binding affinity to TNNT1 (cardiac Tn-C) and TNNT2 (cardiac Tn-T). Phosphorylates FOXO1 on 'Ser-212' and regulates its activation and stimulates transcription of PMAIP1 in a FOXO1-dependent manner. Phosphorylates SIRT1 and inhibits SIRT1-mediated p53/TP53 deacetylation, thereby promoting p53/TP53 dependent transcription and apoptosis upon DNA damage. Acts as an inhibitor of PKB/AKT1. Phosphorylates AR on 'Ser-650' and suppresses its activity by intersecting with PKB/AKT1 signaling and antagonizing formation of AR-chromatin complexes. Subunit Structure: Homodimer; mediated via the coiled-coil region. Interacts with NORE1, which inhibits autoactivation. Interacts with and stabilizes SAV1. Interacts with RASSF1. Interacts with FOXO3. Interacts with RASSF2 (via SARAH domain). Interacts with AR, PKB/AKT1, TNNT3 and SIRT1. Interacts with DLG5 (via PDZ domain 3). Interacts with MARK3 in the presence of DLG5 (PubMed:28087714). Interacts with SCRIB in the presence of DLG5 (PubMed:28169360). Post-translational Modifications: Autophosphorylated on serine and threonine residues. Phosphorylation at Thr-387 by PKB/AKT1, leads to inhibition of its: kinase activity, nuclear translocation and autophosphorylation at Thr-183. It also diminishes its cleavage by caspases and its ability to phosphorylate FOXO3. Proteolytically cleaved by caspase-3 during apoptosis at Asp-326 and Asp-349 resulting in a 37 kDa or a 39 kDa subunit respectively. The 39 kDa subunit is further cleaved into the 37 kDa form. Proteolytic cleavage results in kinase activation and nuclear translocation of the truncated form (MST1/N). It is less likely that cleavage at Asp-349 is a prerequisite for activation as this site is not conserved in the murine ortholog. Similarity: Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. STE20 subfamily.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	5454096
NCBI GeneID	6789
NCBI Accession #	NP_006273.1
NCBI GenBank Nucleotide #	NM_006282.4

UniProt Accession #	Q13043 ; Q15802 ; Q4G156 ; Q5H982 ; Q6PD60 ; Q9BR32 ; Q9NTZ4 ; B2RCR8
Molecular Weight	Observed: 56 kDa Predicted: 56 kDa
NCBI Official Full Name	serine/threonine-protein kinase 4 isoform 1
NCBI Official Synonym Full Names	serine/threonine kinase 4
NCBI Official Symbol	STK4
NCBI Official Synonym Symbols	KRS2; MST1; YSK3
NCBI Protein Information	serine/threonine-protein kinase 4
UniProt Protein Name	Serine/threonine-protein kinase 4
UniProt Gene Name	STK4
UniProt Synonym Gene Names	KRS2; MST1; MST-1; MST1/N; MST1/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/stk4-antibody-immunohistochemistry-western-blot-elisa/327285>