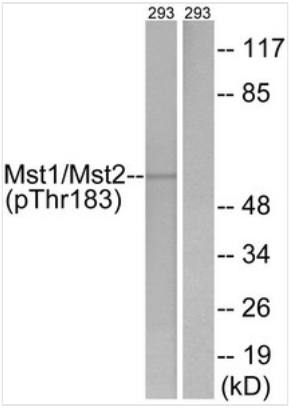
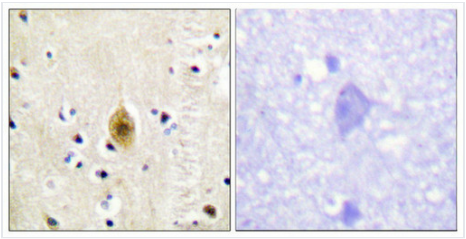
STK4 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	STK4, Polyclonal Antibody
Full Product Name	Phospho-STK4 (Thr183) Antibody
Product Gene Name	anti-STK4 antibody
Product Synonym Names	EC 2.7.11.1; MST-1; Mammalian STE20-like protein kinase 1; STE20-like kinase MST1; STK4; Serine/threonine protein kinase 4; Serine/threonine protein kinase Krs-2; kinase MST1; serine/threonine kinase 4; STE20-like kinase MST1; Yeast Sps1/Ste20-related kin
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse
Form/Format	Liquid; Rabbit IgG In Phosphate Buffered Saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% Sodium Azide and 50% Glycerol.
Purity/Purification	Antibodies were produced by immunizing rabbits with synthetic phosphopeptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. Non-phospho specific antibodies were removed by chromatography usin
Preparation and Storage	Upon receipt, store at -20 degree C or -80 degree C. Avoid repeated freeze.
Molecular Weight	52,335 Da
OMIM	604965
3D Structure	ModBase 3D Structure for Q13043
Immunogen	Peptide sequence around phosphorylation site of threonine 183 (R-N-T(p)-V-I) derived from Human Mst1/2.
Immunogen Species	Human
Conjugate	Non-conjugated
Product Categories/Family for anti-STK4 antibody	Signal Transduction
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-STK4 antibody	ELISA (EIA), Western Blot (WB), Immunohistochemistry (IHC)
Application Notes for anti-STK4 antibody	WB: 1:500-1:3000 IHC: 1:50-1:100
Related Product Information for anti-STK4 antibody	MBS7133455 is an antibody targeting STK4. Also known as Phospho-STK4 (Thr183) Antibody. Reactive in Human, Mouse. Host: Rabbit.
Other Notes	Small volumes of anti-STK4 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



Western Blot (WB) of anti-STK4 antibody
Western blot analysis of extracts from 293 cells, treated with H2O2 (100uM, 15mins), using Mst1/2 (Phospho-Thr183) antibody. The lane on the right is treated with the synthesized peptide.



Immunohistochemistry (IHC) of anti-STK4 antibody
Immunohistochemistry analysis of paraffin-embedded human brain tissue, using Mst1/2 (Phospho-Thr183) antibody. The picture on the right is treated with the synthesized peptide.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for STK4. It may not necessarily be applicable to this product.

NCBI GI #	13124559
NCBI GeneID	6789
NCBI Accession #	Q13043.2
UniProt Primary Accession #	Q13043
UniProt Secondary Accession #	Q15802; Q4G156; Q5H982; Q6PD60; Q9BR32; Q9NTZ4; B2RCR8
UniProt Related Accession #	Q13043
NCBI Official Full Name	Serine/threonine-protein kinase 4
NCBI Official Synonym Full Names	serine/threonine kinase 4
NCBI Official Symbol	STK4
NCBI Official Synonym Symbols	KRS2; MST1; YSK3
UniProt Protein Name	Serine/threonine-protein kinase 4
UniProt Synonym Protein Names	Mammalian STE20-like protein kinase 1; MST-1
Protein Family	Serine/threonine-protein kinase
UniProt Gene Name	STK4
UniProt Synonym Gene Names	KRS2; MST1; MST-1; MST1/N; MST1/C
NCBI Protein Information	serine/threonine-protein kinase 4
NCBI Summary for STK4	The protein encoded by this gene is a cytoplasmic kinase that is structurally similar to the yeast Ste20p kinase, which acts upstream of the stress-induced mitogen-activated protein kinase cascade. The encoded protein can phosphorylate myelin basic protein and undergoes autophosphorylation. A caspase-cleaved fragment of the encoded protein has been shown to be capable of phosphorylating histone H2B. The particular phosphorylation catalyzed by this protein has been correlated with apoptosis, and it's possible that this protein induces the chromatin condensation observed in this process. [provided by RefSeq, Jul 2008]

UniProt Comments for STK4	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 '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 TNNI3 (cardiac Tn-I) and alters its binding affinity to TNNC1 (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.
Research Articles on STK4	**1.** In this study, we investigated the mechanisms behind the recruitment of MST1 and MST2 kinases to MOB1, which facilitate signal transmission in the Hippo pathway by bringing the MST1 and MST2 kinases in close vicinity to their substrates, the LATS family kinases.
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