



Rabbit Anti-phospho-MST4 (Thr190) antibody

SL10682R

Product Name:	phospho-MST4 (Thr190)
Chinese Name:	丝氨酸/苏氨酸蛋白激酶MST4抗体
Alias:	p-MST4 (Thr190); Mammalian Ste20 like protein kinase 4; Mammalian STE20-like protein kinase 4; Mammalian sterile 20 like 4; MASK; MST 4; MST-4; MST3 and SOK1 related kinase; Mst3 and SOK1-related kinase; Mst4; MST4_HUMAN; Serine/threonine protein kinase MASK; Serine/threonine protein kinase MST 4; Serine/threonine protein kinase MST4; Serine/threonine-protein kinase MASK; Serine/threonine-protein kinase MST4; STE20 like kinase MST 4; STE20 like kinase MST4; STE20-like kinase MST4; 2610018G03Rik; EC 2.7.11.1.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Cow,Horse,Sheep,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	50kDa
Cellular localization:	cytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthesised phosphopeptide derived from human MST4 around the phosphorylation site of Thr190:RN(p-T)FV
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

PubMed:

[PubMed](#)

Novel human Ste20-related kinase Mst4 is biologically active in the activation of MEK/ERK pathway and in mediating cell growth and transformation. It is pro apoptotic and is highly expressed in placenta, thymus, and peripheral blood leukocytes. Interaction with Golgi matrix protein GOLGA2 results in autophosphorylation on Thr-178, possibly as a consequence of stabilization of dimer formation. This may also be activated by C terminal cleavage. MST3 or Mammalian Sterile 20-like kinase 3 is a member of the germinal center kinase-III family. MST3 contains a conserved kinase domain at its NH(2)-terminus and a regulatory domain at its COOH-terminus. Caspase-mediated cleavage of the regulatory domain of MST3 activates its intrinsic kinase activity and leads to nuclear translocation. Expression of COOH-terminal truncated MST3 in cells results in DNA fragmentation and induction of apoptosis. It can inhibit cell migration in a fashion dependent on autophosphorylation and can regulate paxillin phosphorylation through tyrosine phosphatase PTP-PEST. Mitogen activated protein kinase cascades have been conserved throughout evolution. In mammals, these cascades allow responses to complex stimuli such as growth factors and inflammatory cytokines. In yeast, STK25 functions upstream of the MAPK cascade.

Function:

Serine/threonine-protein kinase that acts on both serine and threonine residues and promotes apoptosis in response to stress stimuli and caspase activation. Mediates oxidative-stress-induced cell death by modulating phosphorylation of JNK1-JNK2 (MAPK8 and MAPK9), p38 (MAPK11, MAPK12, MAPK13 and MAPK14) during oxidative stress. Plays a role in a staurosporine-induced caspase-independent apoptotic pathway by regulating the nuclear translocation of AIFM1 and ENDOG and the DNase activity associated with ENDOG. Phosphorylates STK38L on 'Thr-442' and stimulates its kinase activity. Regulates cellular migration with alteration of PTPN12 activity and PXN phosphorylation: phosphorylates PTPN12 and inhibits its activity and may regulate PXN phosphorylation through PTPN12. May act as a key regulator of axon regeneration in the optic nerve and radial nerve.

Subunit:

Monomer.

Subcellular Location:

STK25, MST4: Cytoplasmic, Golgi Apparatus. MST3: Cytoplasm. Nucleus. Membrane. Note=The truncated form (MST3/N) translocates to the nucleus. Co-localizes with STK38L in the membrane.

Tissue Specificity:

MST3: Isoform A is ubiquitous. Isoform B is expressed in brain with high expression in hippocampus and cerebral cortex.

Post-translational modifications:

MST3: Proteolytically processed by caspases during apoptosis. Proteolytic cleavage results in kinase activation, nuclear translocation of the truncated form (MST3/N) and

Product Detail:

the induction of apoptosis. Isoform B is activated by phosphorylation by PKA. Oxidative stress induces phosphorylation. Activated by autophosphorylation at Thr-190 and phosphorylation at this site is essential for its function. Manganese, magnesium and cobalt-dependent autophosphorylation is mainly on threonine residues while zinc-dependent autophosphorylation is on both serine and threonine residues.

Similarity:

Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. STE20 subfamily. Contains 1 protein kinase domain.

SWISS:

Q9P289

Gene ID:

51765

Database links:

[Entrez Gene: 51765](#) Human

[Entrez Gene: 70415](#) Mouse

[Entrez Gene: 317589](#) Rat

[Omim: 300547](#) Human

[SwissProt: Q9P289](#) Human

[SwissProt: Q99JT2](#) Mouse

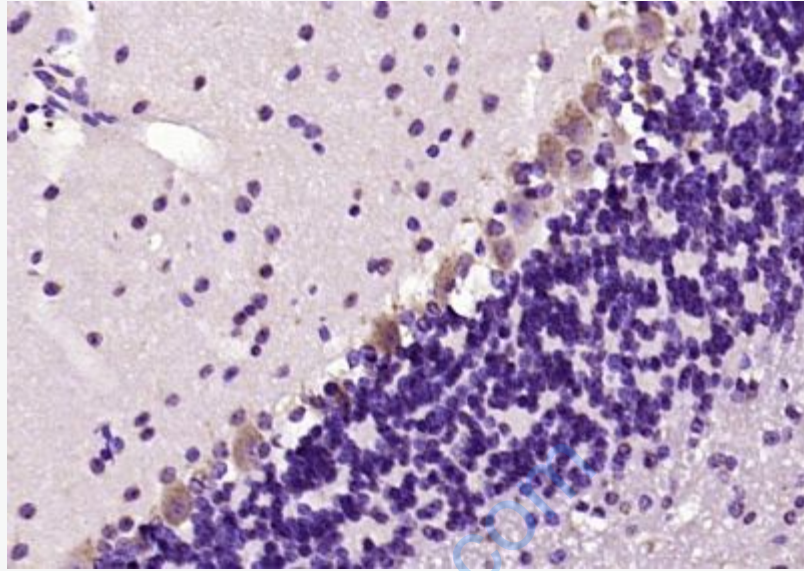
[Unigene: 444247](#) Human

[Unigene: 391246](#) Mouse

[Unigene: 162348](#) Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.



Picture:

Paraformaldehyde-fixed, paraffin embedded (mouse cerebellum); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (phospho-MST4 (Thr190)) Polyclonal Antibody, Unconjugated (SL10682R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.