

Product datasheet for **TP507806**

Stk4 (NM_021420) Mouse Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Mouse serine/threonine kinase 4 (Stk4), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug
Species:	Mouse
Expression Host:	HEK293T
Expression cDNA	>MR207806 protein sequence
Clone or AA Sequence:	Red=Cloning site Green=Tags(s)

METVQLRNPPRRQLKKLDEDSLTKQPEEVFDVLEKLGEGSYGSVYKAIHKETGQIVAIAKQVPVESDLQEI
IKEISIMQQCDSPHVVKYYGSYFKNTDLWIVMEYCGAGSVSDIIRLRNKLTLEDEIATILQSTLKGLEYL
HFMRKIHRDIKAGNILLNTEGHAKLADFGVAGQLTDTMAKRNTVIGTPFWMAPEVIQEIQYNCVADIWSL
GITAIEMAEGKPPYADIHPMRAIFMIPTNPPPTFRKPELWSDNFMDFVKQCLVKSPEQRATATQLLQHPF
VKSAGVLSILRDLINEAMDVCLKRQEAQQREVDQDDEENSEEDEMDSGTMVRAAGDEMGTVRVASTMSGG
ANTMIEHGDTLPSQLGTMVINTEDEEEEGTMKRRDET MQPAKPSFLEYFEQKEKENQINSFGKNVSGSLK
NSSDWKIPQDGDYEFKLSWTVEDLQKRLALDPMMEQEMEEIRQYRSKRQPILDAIEAKRRRQQNF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

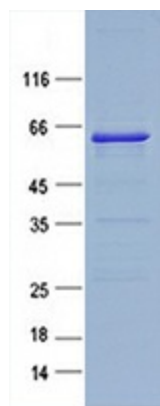
Tag:	C-MYC/DDK
Predicted MW:	55.5 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C after receiving vials.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	NP_067395
Locus ID:	58231



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UniProt ID:	Q9J111
RefSeq Size:	5189
Cytogenetics:	2 H3
RefSeq ORF:	1464
Synonyms:	AI447339; AU020804; Kas-2; Mst1; Ysk3
Summary:	<p>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 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 (By similarity). [UniProtKB/Swiss-Prot Function]</p>

Product images:



Purified recombinant protein Stk4 was analyzed by SDS-PAGE gel and Coomassie Blue Staining.