

Product datasheet for **MC202665**

Stk3 (NM_019635) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Stk3 (NM_019635) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Stk3
Synonyms:	0610042I06Rik; mess1; MST; Mst2; Mst3; Ste20
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >BC049123 sequence for NM_019635
 CCGAGTTACGTGAAAGTTGGTTCGAGTTTCCCAGTGTGATCCCTTGCGTTCGGCCGGCTGCTCCCGGGCT
 CCTTTCCTCCCTACGGCCTTACGGTCCATTCCGGCCCTTCTTCTGCCACCGCCGCCATGGAGCAGCCG
 CCGGCGTCCAAGAGTAAGCTAAAAAGCTGAGTGAAGACAGTTTACTAAGCAGCCTGAAGAAGTTTTTG
 ATGTACTGGAGAAGCTTGGAGAAGGGTCTTATGGAAGTGTTTTTAAAGCAATACATAAGGAATCTGGTCA
 AGTGGTTGCAATTAAGCAAGTACCTGTTGAGTCAGATCTTCAGGAAATAATCAAAGAAATTTCCATAATG
 CAACAATGTGACAGTCCATATGTTGTGAAGTACTATGGCAGTACTTTAAGAACACAGACCTCTGGATTG
 TTATGGAGTACTGTGGAGCGGGTCCGTTTCAGACATAATTAGATTGCGAAACAAGACATTAACAGAAGA
 TGAAATTGCAACTATTCTAAAATCCACATTGAAAGGATTAGAATATTTGCATTTTATGAGGAAAATACAC
 AGAGATATAAAAGCCGGGAATTTCTCCTCAATACAGAAGGACATGCAAAGCTTGCGAGTTTTGGAGTGG
 CTGGCCAGTTAACAGATACAATGGCAAAACGCAACACTGTAATAGGAACCCCATTTTGGATGGCTCTGA
 GGTAAATCAAGAAATAGTTTACAACGTGTGGCTGACATCTGGTCCCTTGGCATTACTTCTATAGAAATG
 GCAGAAGGAAAACCTCCTTATGCTGATACATCCGATGAGGGCTATTTTTATGATCCCTACAAACCCAC
 CACCAACATTCAGGAAACCTGAACTTTGGTCTGATGACTTCACCGATTTTGTGAAGAAGTCTTGGTGAA
 GAGTCTGAGCAGAGAGCCACTGCGACACAGCTTTACAGCATCCTTTTATCAAGATGCAAACCCGTG
 TCGATATTAAGAGACCTGATCGCAGAAGCCATGGAATCAAGCCAAACGGCATGAAGAGCAGCAGCGGG
 AGCTAGAGGAGGAGGAAGAAAATCGGATGAAGATGAGCTGGATTACACACTATGGTGAAGACGAGTTC
 AGAAAGCGTGGGCACAATGCGGGCCACCAGCAGATGAGTGAAGGAGCCCAGACGATGATTGAACATAAC
 AGCACCATGTTAGAGTCGGACCTGGGGACCATGGTTATAAACAGTGAAGAAGAGGAGGAAGGAAGAGG
 AGGAGGAGGAGGACGGAATATGAAAAGAAATGCAACGTACCTCAAGTACAAAGACCTTCTTTCATGGA
 CTACTTTGATAAGCAGGACTTCAAGAACAAGAGTCATGAAAATTTGTATCAGAGCATGCGTGAGCCAGGC
 CCTATGTCCAACAGTGTTTTTCTGACAACCTGGAGAGTTCCTCAAGATGGAGACTTTGATTTCTTAAAAA
 ATCTAAGTTTGAAGAATAACAGATGCGGCTAAAAGCACTAGACCCCATGATGGAACGAGAATAAGAA
 ACTGCATCAAAGATACAGTGCAAAAGACAACCTATCCTGGATGCCATGGATGCGAAGAAGAGGAGGCAG
 CAGAATTTCTGACCAGATTCCCTCTGTCTCAGGATGACCAGAAACCAAGCAACCACAAGAATTGAAGGAA
 TTCTACTTTTTAATCCCTAAAATGTATATTCTACAATTTTTTAAAACTCAAAAATGATGGTACACACCTA
 GATAAATTTCCAAAAGCAAACCTTACAGTTGTCTCCACTCTGATGTCGTTTTGAAAGGATGAGAACAAC
 AAACGTGCGCACTTCTCTCTGCTGCTATTCCACCTGCAAGAGAACTAATCTAAAATGAAAGCTGTGG
 AGACTAGAAAATCCAAAGCTGTTGCTTAGTCAATCATAACAGCACTGGAGGGCTTTGTGTTCCAATGCCTT
 TATTCCTATGGAGAAGCCTATTTATTGATCCCCCTCCACCCCCAGGTAGACTTATTTATTTATGCAGT
 TTCACTTTCTGGGGTTTTTTTTTTTTTTTAAAGACCAGATCAGGATAGTTTTGGTGAATGTCCAGACAC
 ATTGCGGATTATAACACACAACCAAATTTGACTAAGCAGGGAGCTCTGAGTGTACTCCTTCAACTCCA
 ATAGACACAAAGTCATGGCTGTAATGTTCAAATGGACCAGACATTTTATACTGAAGACTTAAATACATTT
 CTACCTTTTGAAGTGTAATTCCTGATTTTGTATTTGGTAAAAATAAACTATATATACATAGGTCAAAA
 AGAGTACAGTGTAAAACCAAAGAAATCAATGAACTCTTGACGAAAAAGTGTGGGAAATATTTTTAAAGA
 CATGAAACTGAGGGAAAAAAATGTAATTGTTAATGTTTCTTTTATTGGTCTGCAATAACTCATCAGGTTT
 ATCCTATGGGAATATGCTTCTGTACAGGACTTTTTGTGATTTTCAATTTATTTCTGGGAATTTGGTAAGC
 ATCATGTATCTGACAATAAACAGTAAAAACAAAAACAAAACTTTTATACTAAAACTGTATCCTTAGG
 GCCTAAAAAATAAAATTAAGTATTAGAAAAAGACTCATTCTGCAGAGCATTAGCATTGTGTAATT
 GACCTGGGACCAGTCATTTCTGCACTACACATGCTTTTTTACTGTGTGTGTGTTCTTTTATGTGT
 TAATTAATATGTGTGCCTCACAAGACAATAAATTCATTGTGCCACCCAAAAAATAAAAAAAAAAAAAA

Restriction Sites: Ascl-NotI

ACCN: NM_019635

Insert Size: 1494 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	BC049123 , AAH49123
RefSeq Size:	2798 bp
RefSeq ORF:	1494 bp
Locus ID:	56274
UniProt ID:	Q9J110
Cytogenetics:	15 B3.1
Gene 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 NKX2-1. Phosphorylates NEK2 and plays a role in centrosome disjunction by regulating the localization of NEK2 to centrosomes, 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 (By similarity).[UniProtKB/Swiss-Prot Function]</p>