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Product datasheet for RC210831

MST1 (STK4) (NM_006282) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MST1 (STK4) (NM_006282) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MST1
Synonyms:	KRS2; MST1; YSK3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

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ORF Nucleotide Sequence:

>RC210831 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAGACGGTACAGCTGAGGAACCCGCCGCGCCGGCAGCTGAAAAAGTTGGATGAAGATAGTTTAACCA
AACAACCAGAAGAAGTATTTGATGTCTTAGAGAAACTTGGAGAAGGGTCCTATGGCAGCGTATACAAAGC
TATTCATAAAGAGACCGGCCAGATTGTTGCTATTAAGCAAGTTCCTGTGGAATCAGACCTCCAGGAGATA
ATCAAAGAAATCTCTATAATGCAGCAATGTGACAGCCCTCATGTAGTCAAATATTATGGCAGTTATTTTA
AGAACACAGACTTATGGATCGTTATGGAGTACTGTGGGGCTGGTTCTGTATCTGATATCATTCGATTACG
AAATAAAACGTTAACAGAAGATGAAATAGCTACAATATTACAATCAACTCTTAAGGGACTTGAATACCTT
CATTTTATGAGAAAAATACACCGAGATATCAAGGCAGGAAATATTTTGCTAAATACAGAAGGACATGCAA
AACTTGCAGATTTTGGGGTAGCAGGTCAACTTACAGATACCATGGCCAAGCGGAATACAGTGATAGGAAC
ACCATTTTGGATGGCTCCAGAAGTGATTCAGGAAATTGGATACAACTGTGTAGCAGACATCTGGTCCCTG
GGAATAACTGCCATAGAAATGGCTGAAGGAAAGCCCCCTTATGCTGATATCCATCCAATGAGGGCAATCT
TCATGATTCCTACAAATCCTCCTCCCACATTCCGAAAACCAGAGCTATGGTCAGATAACTTTACAGATTT
TGTGAAACAGTGTCTTGTAAAGAGCCCTGAGCAGAGGGCCACAGCCACTCAGCTCCTGCAGCACCCATTT
GTCAGGAGTGCCAAAGGAGTGTCAATACTGCGAGACTTAATTAATGAAGCCATGGATGTGAAACTGAAAC
GCCAGGAATCCCAGCAGCGGGAAGTGGACCAGGACGATGAAGAAAACTCAGAAGAGGATGAAATGGATTC
TGGCACGATGGTTCGAGCAGTGGGTGATGAGATGGGCACTGTCCGAGTAGCCAGCACCATGACTGATGGA
GCCAATACTATGATTGAGCACGATGACACGTTGCCATCACAACTGGGCACCATGGTGATCAATGCAGAGG
ATGAGGAAGAGGAAGGAACTATGAAAAGAAGGGATGAGACCATGCAGCCTGCGAAACCATCCTTTCTTGA
ATATTTTGAACAAAAAGAAAAGGAAAACCAGATCAACAGCTTTGGCAAGAGTGTACCTGGTCCACTGAAA
AATTCTTCAGATTGGAAAATACCACAGGATGGAGACTACGAGTTTCTTAAGAGTTGGACAGTGGAGGACC
TTCAGAAGAGGCTCTTGGCCCTGGACCCCATGATGGAGCAGGAGATTGAAGAGATCCGGCAGAAGTACCA
GTCCAAGCGGCAGCCCATCCTGGATGCCATAGAGGCTAAGAAGAGACGGCAACAAAACTTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC210831 protein sequence
Red=Cloning site Green=Tags(s)

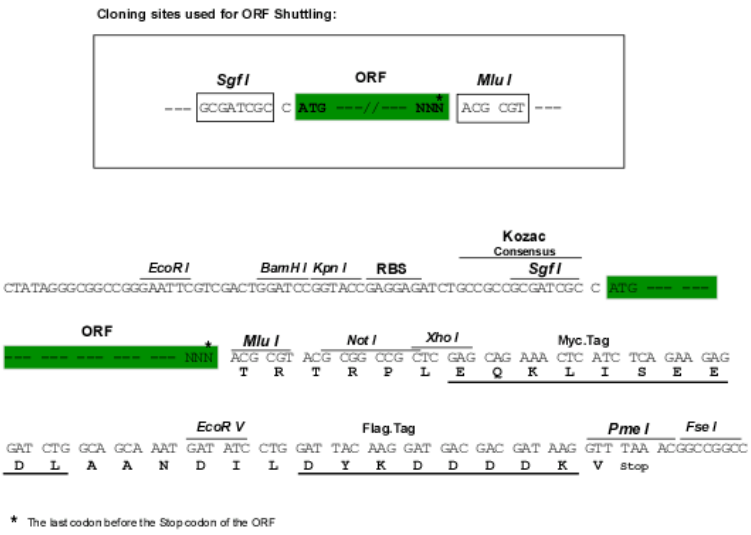
METVQLRNPPRRQLKKLDEDSLTKQPEEVFDVLEKLGEGSYGSVYKAIHKETGQIVAIKQVPVESDLQEI
IKEISIMQQCDSPHVVKYYGSYFKNTDLWIVMEYCGAGSVSDIIRLRNKTLTEDEIATILQSTLKGLEYL
HFMRKIHRDIKAGNILLNTEGHAKLADFGVAGQLTDTMAKRNTVIGTPFWMAPEVIQEIGYNCVADIWSL
GITAIEMAEGKPPYADIHPMRAIFMIPTNPPPTFRKPELWSDNFTDFVKQCLVKSPEQRATATQLLQHPF
VRSAKGVSILRDLINEAMDVKLKRQESQQREVDQDDEENSEEDEMDSGTMVRAVGDEMGTVRVASTMTDG
ANTMIEHDDTLPSQLGTMVINAEDEEEEGTMKRRDETMQPAKPSFLEYFEQKEKENQINSFGKSVPGPLK
NSSDWKIPQDGDYEFLKSWTVEDLQKRLLALDPMMEQEIEEIRQKYQSKRQPILDAIEAKKRRQQNF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6008_a12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_006282

ORF Size: 1461 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:
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: NM_006282.5

RefSeq Size: 6344 bp

RefSeq ORF: 1464 bp

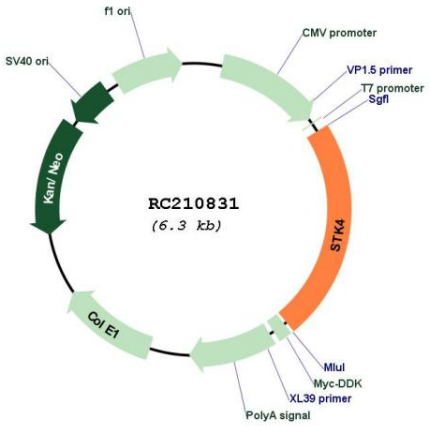
Locus ID: 6789

UniProt ID: Q13043

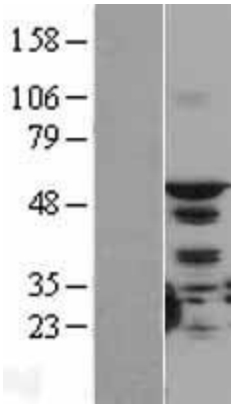
Cytogenetics: 20q13.12

Domains:	pkinase, TyrKc, S_TKc
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	MAPK signaling pathway, Non-small cell lung cancer, Pathways in cancer
MW:	55.6 kDa
Gene Summary:	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]

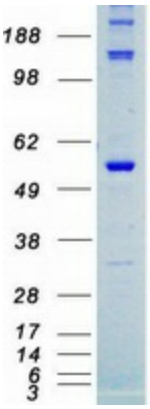
Product images:



Circular map for RC210831



Western blot validation of overexpression lysate (Cat# [LY401893]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210831 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified STK4 protein (Cat# [TP310831]). The protein was produced from HEK293T cells transfected with STK4 cDNA clone (Cat# RC210831) using MegaTran 2.0 (Cat# [TT210002]).