

Product datasheet for **SC323337**

MST1 (STK4) (NM_006282) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MST1 (STK4) (NM_006282) Human Untagged Clone
Tag:	Tag Free
Symbol:	MST1
Synonyms:	KRS2; MST1; YSK3
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_006282, the custom clone sequence may differ by one or more nucleotides

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ATGGAGACGGTACAGCTGAGGAACCCGCCGCGCCGGCAGCTGAAAAAGTTGGATGAAGATAGTTTAAACCA
AACCAACCAGAAGAAGTATTTGATGTCTTAGAGAAACTTGGAGAAGGGTCCTATGGCAGCGTATACAAAGC
TATTCATAAAGAGACCGGCCAGATTGTTGCTATTAAGCAAGTTCCTGTGGAATCAGACCTCCAGGAGATA
ATCAAAGAAATCTCTATAATGCAGCAATGTGACAGCCCTCATGTAGTCAAATATTATGGCAGTTATTTTA
AGAACACAGACTTATGGATCGTTATGGAGTACTGTGGGCTGGTCTGTATCTGATATCATTTCGATTACG
AAATAAAACGTTAACAGAAGATGAAATAGCTACAATATTACAATCAACTCTTAAGGGACTTGAATACCTT
CATTTTATGAGAAAAATACACCGAGATATCAAGGCAGGAAATATTTTGCTAAATACAGAAGGACATGCAA
AACTTGCAGATTTTGGGGTAGCAGGTCAACTTACAGATACCATGGCCAAGCGGAATACAGTGATAGGAAC
ACCATTTTGGATGGCTCCAGAAGTGATTAGGAAATTGGATACAACCTGTGTAGCAGACATCTGGTCCCTG
GGAATAACTGCCATAGAAATGGCTGAAGGAAAGCCCCCTTATGCTGATATCCATCCAATGAGGGCAATCT
TCATGATTCCTACAAATCCTCCTCCACATTCCGAAAACCAGAGCTATGGTCAGATAACTTTACAGATTT
TGTGAAACAGTGTCTTGTAAAGAGCCCTGAGCAGAGGGCCACAGCCACTCAGCTCCTGCAGACCCATTT
GTCAGGAGTGCCAAAGGAGTGTCAATACTGCGAGACTTAATTAATGAAGCCATGGATGTGAAACTGAAAC
GCCAGGAATCCCAGCAGCGGGAAGTGGACCAGGACGATGAAGAAAACCTAGAAGAGGATGAAATGGATTC
TGGCACGATGGTTCGAGCAGTGGGTGATGAGATGGGCACTGTCCGAGTAGCCAGCACCATGATGATGGA
GCCAATACTATGATTGAGCACGATGACAGGTTGCCATCACAACCTGGGCACCATGGTGATCAATGCAGAGG
ATGAGGAAGAGGAAGGAACTATGAAAAGAAGGGATGAGACCATGCAGCCTGCGAAAACCATCCTTTCTTGA
ATATTTTGAACAAAAAGAAAAGGAAAACAGATCAACAGCTTTGGCAAGAGTGTACCTGGTCCACTGAAA
AATTCTTCAGATTGAAAAATACCACAGGATGGAGACTACGAGTTTCTTAAGAGTTGGACAGTGGAGGACC
TTCAGAAGAGGCTCTTGGCCCTGGACCCCATGATGGAGCAGGAGATTGAAGAGATCCGGCAGAAGTACCA
GTCCAAGCGGCAGCCCATCTGGATGCCATAGAGGCTAAGAAGAGACGGCAACAAAACCTTCTGA

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5' Read Nucleotide Sequence:	>OriGene 5' read for mutant NM_006282 unedited ACCGCCGTTGAGCAATGGGCGGTAGGCGGTACGGCGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGAA CCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGCAATTCGGCACGAGGGGCGGGCTCAGGAG GTCCGCGGGAGGATGGAGCAGTGAGCGGGTCTGGGCGGCTGCTGGCAGCGCCATGGAGACGGTACAGCTG AGGAACCCGCGCGCCGCGAGCTGAAAAAGTTGGATGAAGATAGTTTAAACAAACAACCAGAAGAAGTAT TTGATGTCTTAGAGAACTTGGAGAAGGGTCTATGGCAGCGTATACAAAGCTATTCATAAAGAGTCTGG CCAGATTGTTGCTATTATGCAAGTTCCTGTGGAATCAGACCTCCAGGAGATAATCAAAGAAATCTCTATA ATGCAGCAATGGTGACAGCCCTCATGGTAGTCCAATATATGGGCAGTTATTTAAGAACCACAGACTTA TGGGATCGTTATGGAAGTACTGGTGGGGCTGGTTCTGTATCTGATTTTCATTTCGATTTACGAAAATAAAC GGTAAACGAAGATGAAATAGCTACATTTTACAATCCACTCTAAGGAACTGGAATACCTTCATTTATAGAG AAAATAAACCGAGTTCCAAGGCAGGAATTTTGGCTAAATACGAAGGACATGCAAATGCAGATTTGGGAA GCAGGCAACCTACGATTACATGGCCAAGCGAATACATGTAAGAACCATTGAATGCTCCGAATGATCGGAA TTGGTACCACGTGTAACCTGGTCCGGATCTGCTAAATGCTAGAGGCCATCGCTATCCTTAGGACCTAC GTATCATGTCTCAAATCGGACCAGTGTGCTACCTCCAGTTG
Kinase Domain Sequence:	>SC323337 kinase domain raw sequence. By performing BLASTX analysis with this sequence against NCBI reference protein database, you can confirm the presence of the kinase-deficient mutation CSMTGMGCAATGGGCGGTAGGCKGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGAACCGTCA GAATTTTGTAAACGACTCACTATAGGGCGGCCGCAATTCGGCACGAGGGGCGGGCTCAGGAGTCCGC GGGAGGATGGAGCAGTGAGCGGGTCTGGGCGGCTGCTGGCAGCGCCATGGAGACGGTACAGCTGAGGAAC CCGCCGCGCCGCGAGCTGAAAAAGTTGGATGAAGATAGTTTAAAC
Restriction Sites:	Please inquire
ACCN:	NM_006282
Insert Size:	2600 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).
OTI Annotation:	This kinase-deficient mutant clone was generated by created by site-directed mutagenesis from the corresponding wild-type clone. See details in "Application of active and kinase-deficient kinome collection for identification of kinases regulating hedgehog signaling." Cell, 2008 May p536-548.
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:	NM_006282.2 , NP_006273.1
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

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]