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# Product datasheet for SC323356

## MST3 (STK24) (NM_003576) Human Untagged Clone

### Product data:

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| **Product Type:** | Expression Plasmids |
| **Product Name:** | MST3 (STK24) (NM_003576) Human Untagged Clone |
| **Tag:** | Tag Free |
| **Symbol:** | MST3 |
| **Synonyms:** | HEL-S-95; MST3; MST3B; STE20; STK3 |
| **Mammalian Cell Selection:** | None |
| **Vector:** | pCMV6-XL5 |
| **E. coli Selection:** | Ampicillin (100 ug/mL) |
| **Fully Sequenced ORF:** | >NCBI ORF sequence for NM_003576, the custom clone sequence may differ by one or more nucleotides |

ATGGACTCCAGAGCCCAGCTTTGGGGACTGGCCTTGAATAAAAGGAGGGCCACTCTACCTCATCCTGGAG
GGAGCACGAACCTAAAGGCAGACCCAGAAGAGCTTTTTACAAAACTAGAGAAAATTGGGAAGGGCTCCTT
TGGAGAGGTGTTCAAAGGCATTGACAATCGGACTCAGAAAGTGGTTGCCATAAAGATCATTGATCTGGAA
GAAGCTGAAGATGAGATAGAGGACATTCAACAAGAAATCACAGTGCTGAGTCAGTGTGACAGTCCATATG
TAACCAAATATTATGGATCCTATCTGAAGGATACAAAATTATGGATAATAATGGAATATCTTGGTGGAGG
CTCCGCACTAGATCTATTAGAACCTGGCCCATTAGATGAAACCCAGATCGCTACTATATTAAGAGAAATA
CTGAAAGGACTCGATTATCTCCATTCGGAGAAGAAAATCCACAGAGACATTAAAGCGGCCAACGTCCTGC
TGTCTGAGCATGGCGAGGTGAAGCTGGCGGACTTTGGCGTGGCTGGCCAGCTGACAGACACCCAGATCAA
AAGGAACACCTTCGTGGGCACCCCATTCTGGATGGCACCCGAGGTCATCAAACAGTCGGCCTATGACTCG
AAGGCAGACATCTGGTCCCTGGGCATAACAGCTATTGAACTTGCAAGAGGGGAACCACCTCATTCCGAGC
TGCACCCCATGAAAGTTTTATTCCTCATTCCAAAGAACAACCCACCGACGTTGGAAGGAAACTACAGTAA
ACCCCTCAAGGAGTTTGTGGAGGCCTGTTTGAATAAGGAGCCGAGCTTTAGACCCACTGCTAAGGAGTTA
TTGAAGCACAAGTTTATACTACGCAATGCAAAGAAAACTTCCTACTTGACCGAGCTCATCGACAGGTACA
AGAGATGGAAGGCCGAGCAGAGCCATGACGACTCGAGCTCCGAGGATTCCGACGCGGAAACAGATGGCCA
AGCCTCGGGGGGCAGTGATTCTGGGGACTGGATCTTCACAATCCGAGAAAAAGATCCCAAGAATCTCGAG
AATGGAGCTCTTCAGCCATCGGACTTGGACAGAAATAAGATGAAAGACATCCCAAAGAGGCCTTTCTCTC
AGTGTTTATCTACAATTATTTCTCCTCTGTTTGCAGAGTTGAAGGAGAAGAGCCAGGCGTGCGGAGGGAA
CTTGGGGTCCATTGAAGAGCTGCGAGGGGCCATCTACCTAGCGGAGGAGGCGTGCCCTGGCATCTCCGAC
ACCATGGTGGCCCAGCTCGTGCAGCGGCTCCAGAGATACTCTCTAAGTGGTGGAGGAACTTCATCCCACT
GA

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**5' Read Nucleotide Sequence:**

>OriGene 5' read for mutant NM_003576 unedited
CCGCCGTTTGAGCAATGGGCGGTAGGCGTGTACGGCTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGA
ACCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGCGAATTCGGCACGAGGCTCCGGCCGGCCC
CGCCGCCCGAGGGCTGCGCGCGGCCCGCGGGCCTCGCCGCCCCGCGCGGATCGTCGCGGCCCGGCCGTCC
CGTCCCAGGAAGTGGCCGTCCTGAGCGCCATGGCTCACTCCCCGGTGCAGTCGGGCCTGCCCGGCATGCA
GAACCTAAAAGGCAGACCCAGAAGAGCTTTTTACAAAACTAAAAAAAATTGGGAAGGGCTTCTTTTGGAG
TTGGTGTTTCAAAGGCATTTGACAATCGGAACTCAAAAGTGTGGTTGCCATAAGGATCAATTGTTCTGGG
AGGAAGCCTGAAAAGAAAAAAAAAGGACTTTTCAACAAAAAATTCCCAGGGGCTTGATTTCATTGGGGAA
CATTCCCTTTGGTACCAAATTTTTAGGGTTTCCAACTAAAGGGAACCAAAATTTGGGAAAAAAAAGGAAA
TTTTTTGGGGGGAGGGCCCCGCCCAATTTTTTTTTAAACCCGGCCCCATTTATAAAAAACCCCATTATCC
TCTATATTTTAAAAAAAAAAATCTGGAGGGGCCGTTATTTTCCCTTTTCAGAAAAAAAAAAACCCCCAAA
AATTTTTAAGGCCCCCAATCCTCCGTGTCGCCAAATAGGGGAGAGAAAAATAGGGGAGATTTTGTGGGTG
GGTCGCATAAAAAAAACCCCGATAAAAAGAGAGCAACTCTTCGGGCGACACCTCTGTAGGGTACCACGAG
TGTCTCACGATATGTGTCACGAGTAGACAAGAGAA

**Kinase Domain Sequence:**

>SC323356 kinase domain raw sequence. By performing BLASTX analysis with this sequence against NCBI refernce protein database, you can confirm the presence of the kinase-deficient mutation
CGACGMGCAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGAACCGTC
AGAATTTTGTAATACGACTCACTATAGGGCGGCCGCGAATTCGGCACGAGGCTCCGGCCGGCCCCGCCGC
CCGAGGGCTGCGCGCGGCCCGCGGGCCTCGCCGCCCCGCGCGGATCGTCGCGGCCCGGCCGTCCCGTCCC
AGGAAGTGGCCGTCCTGAGCGCCATGGCTCACTCCCCGGTGCAGT

**Restriction Sites:** Please inquire

**ACCN:** NM_003576

**Insert Size:** 2440 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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 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).

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| **Reconstitution Method:** | 1. Centrifuge at 5,000xg for 5min.<br>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.<br>3. Close the tube and incubate for 10 minutes at room temperature.<br>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.<br>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_003576.1, NP_003567.1 |
| **RefSeq Size:** | 1970 bp |
| **RefSeq ORF:** | 1296 bp |
| **Locus ID:** | 8428 |
| **UniProt ID:** | Q9Y6E0 |
| **Cytogenetics:** | 13q32.2 |
| **Domains:** | pkinase, TyrKc, S_TKc |
| **Protein Families:** | Druggable Genome, Protein Kinase |
| **Gene Summary:** | This gene encodes a serine/threonine protein kinase that functions upstream of mitogen-activated protein kinase (MAPK) signaling. The encoded protein is cleaved into two chains by caspases; the N-terminal fragment (MST3/N) translocates to the nucleus and promotes programmed cells death. There is a pseudogene for this gene on chromosome X. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Nov 2013]<br>Transcript Variant: This variant (1) encodes the longest isoform (a, also known as MST3b).<br>Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments. |

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