

Product datasheet for MC229419

Tsc1 (NM_001289576) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Tsc1 (NM_001289576) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Tsc1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>MC229419 representing NM_001289576 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCCAGTTAGCCAACATTGGGGAGCTGCTCTCCATGCTGGACTCCTCCACACTGGGTGTGCGGGATG
ACGTGACAGCCATCTTCAAGGAGTCCCTCAATTCTGAACGTGGGCCTATGCTTGAACACGTTGGTTGA
TTATTACCTGGAACCAATTCTCAGCCGGTATTGCACATCTGACCACCTGCAGGAGCCACACGATAAG
CACCTCTTGGACAAAATTAATGAGTATGTAGGCAAAGCTGCTACCCGTTTATCCATCCTCTCGCTGCTGG
GGCATGTTGTGAGACTGCAGCCATCTTGAAGCATAAGCTCTCTCAAGCACCTCTTCTGCCTTTTATT
GAAATGTCTCAAGATGGACACTGATGTTGTGGTCTCACAACCTGGTGTCTTGGTGTGATCACCATGCTC
CCGATGATCCCGCAGTCAGGGAAGCAGCACCTTCTCGACTTCTTTGACATCTTTGGCCGTCTCTCGTCAT
GGTGCCTGAAGAAACCAGGCCATGTGACAGAAGTGTACCTGGTCCATCTCATGCCAGTGTATGCCCCT
CTTTCACCGCCTTATGGGATGTACCCATGTAACCTCGTCTCCTTCTGCGCTCTCACTACAGTATGAAG
GAAAACGTGGAGACTTTTGAAGAAGTGGTCAAGCCAATGATGGAGCATGTGCGAATTCACCCGGAATTAG
TGACTGGATCCAAGGACCATGAACTGGACCCTCGAAGGTGGAAGACATTAGAACTCATGATGTTGTAAT
AGAGTGTGCCAAATCTCTCTGGACCCTACAGAAGCCTCGTATGAAGATGGCTATTCTGTGTACACCAG
CTCTCTGCTTGCCTTACCCTTACCGTTCAGCTGATGTCACCACCAGCCCTTATGTGGACACACAGAATAGCT
ATGGGGTCTACTTCCACCCCTTCTCCAGCTCTCGGCTGATGTTGTTGAGTCCACCTGGGCAGCTACC
TCAGAGTTTGAAGTCCCATCAACACGGCTGTTACCTGAGCCGCTGCAAGCTAGTCTCTGGAGCCCATCT
GCGGTCTGTGGTATGACCACTCCTCCTACGTCTCCTGAAATGTCCAGCTGATTTGTACATCCGTATA
GTAAAGCCTTTGGTACCCTGGTGGAAAAGGAACCTCCTCAGGAACCCAGCGACCTCTCCTCCTCCAGC
CCCACCTTGTCCCAAGATGACTGTGTGCATGGTTCAGCAGCCCAGGCCCTCAGCCACAGCCCCAGGAAG
GAAGAAAGAGCAGATTCCCTCAAGCCCTACCTTACAGACAGTCAAACGACCCAGGATTAGAGATCCAC
CTGGAAGCAAAGTTCCGTTACTCTGAGGAATCTACCTGATTTCCCTAGGTGATCTGGCTTCTGAGGAAGA
CAGTATCGAGAAAGATAAGGAAGAGCTGCAATATCTAAAGAGCTTTCTGAGATCACTACTGCAGAGGCG
GATCCTGTAGTTCCTCGAGGGGGCTTTGACTCTCCCTTACCGAGACAGTCTCTCTGGCTCTCAGCGGA
AGACTCATTGCGCAGCCTCTGGGACTCAGGGCTCCAGCGTGAACCCTGAGCCTTTCAGCTCCTCCCTGGA
CAACATGGGCCTGACACACCAAAGCAAGCCTTACTCCCATAGACCCACCCTCTGGCAGTGCTGATGTC



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AGTCCCGCTGGGACAGGGATCGCCAGACTTCTCTGGAGACCAGTATCCTCACTCCCAGCCCTTGCAAAA
TCCACCTCAGAGGGGAGTGAGCTTTGGAAGTGGGCAGCTTCCCCATATGATCATCTCTTTGAGGTGGC
CTTGCCAAAGACTGCCTGTCACTTTGTGAGCAAGAAGACTGAGGAGCTGTTGAAGAAAGTAAAGGAAAC
CCTGAGGAAGACTGTGTGCCCTTACCTCCCAATGGAAGTACTGGACAGACTGATAGAGCAGGGAGCAG
GTGCGCACAGCAAGGAGCTGAGCAGGTTGTCCCTGCCAGCAAGTCTGTTGACTGGACCCACTTTGGAGA
TGAGCTCCGGACCCTCCGAGACCAGTTGCTTTTACTGCACAATCAGCTGCTGTACGAGCCGCTTCAAGCGG
CAGCAGCATGCCTCAGGAACAGAAGGCTCCTGCGCAAGGTGATCCGAGCAGCGGCTCTGGAGGAACACA
ATGCAGCAATGAAAGATCAGTTGAAGTTACAAGAGAAGGACATACAGATGTGGAAGGTGAGTCTGCAGAA
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CCACCAAGGAAGTAGAAATGATGAAAATGCATATCGGAAAGAGCTAGAGAAAAACAGAAGCCACCTTCT
CCAGCAGAACCAAGGTTGGACGCCTCACAGAGCGGAGTTTTGGAACTGGAGTCTCTTCTGGCCAAGAAA
GACCACCTTCTCCTAGAACAGAAGAAATATCTTGAGGATGTCAAGAGCCAGGCGAGTGGACAGCTGCTGG
CTGCAGAGAGCAGGTATGAGGCTCAGAGAAAGTACCCCGGTGTTGAACTGGAGATCCTAGACTTGTA
TGGCAGGTTGAAAAAGATGGCCGCTACGGAACTAGAAGAGGACAGAGCAGAGGCAGCAGAGGCAGCA
GAAGAGAGGCTTGACTGTTGTAGTGTGGATGCACAGATTCTTGGTAGGACATAATGAAGAGGCTTCTG
GTCACAATGGTGAGACCAGGACCTCCAGACCTGGTGGCACCCGGGCCAGCTGTGGAGGTAGAGTCACTGG
AGGCAGCAGCAGCAGCAGTGAAGTCCACTCCAGAGAAACCCCGAGCCAGAGGTTACAGCAGCCGG
TGGGAACCTGCCCTGGGCGAGCCCTCCAGCAGCATCCCCACCCTGTTGGCTCACTTCCCAGTCCAAAA
GCTTCTGGGCATGAAGGCCCGGAGCTGTTCCGTAATAAGAGCGAGAGCCAGTGTGATGAGGACAGCGT
GACCATGAGTAGCAGCAGCCTTTCTGAGACCCTGAAGACAGAAGTGGGCAAGGACTCGGGCACAGAAAAAC
AAGACTTCCCTGAGTCTAGATGCCCCACCCATCTTCCCAAACTCAGACAATGTGGGGCAGCTCCACA
TCATGGACTACAATGAGACTCATCTGAACACAGCTGA
    
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA
    
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- Restriction Sites:** Sgfl-MluI
- ACCN:** NM_001289576
- Insert Size:** 3468 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:** Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
- 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_001289576.1](#), [NP_001276505.1](#)

RefSeq Size: 7714 bp

RefSeq ORF: 3468 bp

Locus ID: 64930

UniProt ID: [Q9EP53](#)

Cytogenetics: 2 A3

Gene Summary: In complex with TSC2, inhibits the nutrient-mediated or growth factor-stimulated phosphorylation of S6K1 and EIF4EBP1 by negatively regulating mTORC1 signaling (By similarity). Implicated as a tumor suppressor. Involved in microtubule-mediated protein transport, but this seems to be due to unregulated mTOR signaling (PubMed:16707451). Acts as a co-chaperone for HSP90AA1 facilitating HSP90AA1 chaperoning of protein clients such as kinases, TSC2 and glucocorticoid receptor NR3C1 (PubMed:29127155). Increases ATP binding to HSP90AA1 and inhibits HSP90AA1 ATPase activity (PubMed:29127155). Competes with the activating co-chaperone AHSA1 for binding to HSP90AA1, thereby providing a reciprocal regulatory mechanism for chaperoning of client proteins (By similarity). Recruits TSC2 to HSP90AA1 and stabilizes TSC2 by preventing the interaction between TSC2 and ubiquitin ligase HERC1 (By similarity).[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (3) uses two alternate in-frame splice sites, one each in the 5' and 3' coding regions, compared to variant 1. It encodes isoform 3, which is shorter than isoform 1.