

Product datasheet for RN213270

Tsc1 (NM_021854) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Tsc1 (NM_021854) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Tsc1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>RN213270 representing NM_021854 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCAGCTAGCCAACATTGGGGAGCTACTCTCCATGCTGGACTCTTCCACACTGGGTGTGCGTGATG
ACGTGACAACCATCTTCAAGGAGTCCCTCAATTCTGAACGTGGGCTATGCTTGTAAACAGTGGTGGA
TTATTACCTGGAAACCAATTCTCAGCCGGTCTTGACATCCTGACCACCTGCAAGAGCCACATGATAAG
CACCTCTTGGACAAAATGAATGAGTATGTAGGCAAAGCTGCCACCCGCTTATCCATCCTCTCGCTGCTGG
GGCATGTTGTGAGGCTGCAGCCATCTTGGAGCATAAGCTCTCAAGCACCTCTTCCGCTTCTTACT
GAAATGTCTCAAGATGGACACTGATGTTGTGGTTCTCACAACTGGTGTCTTGGTGTGATACCATGCTA
CCGATGATCCCGAGTCAGGGAAGCAGCACCTTCTCGACTTCTTTGACATCTTTGGCCGCTTTTCATCAT
GGTGCCTGAAGAAACCAGGCCATGTGACAGAAGTCTACCTGGTCCACCTCCATGCCAGTGTTTATGCCCT
CTTCCATCGCCTTTATGGAATGTACCCTTGTAACCTCGTCTCCTTCTGCGCTCTCACTACAGCATGAAG
GAAAACGTGGAGACTTTTGAAGAAGTGGTCAAGCCAATGATGGAGCATGTGCGAATTCACCCGGAATTAG
TGACTGGATCCAAGGACCATGAACTGGACCCTCGAAGGTGGAAGACATTAGAAACTCATGATGTTGTAAT
AGAGTGTGCCAAAATCTCTGACCCTACCGAAGCCTCATATGAAGATGGCGATGCTGTGTCTCACCAG
CTCTCTGCTGCTTCCCTCACCGTTGAGCTGATGTCACCACCAGCTTTACGTGGACACACAGAATAGCT
ATGGGGGGCGTACTTCCACCCCTTCTCCACCTCTCGGCTGATGTTGTTACGTACCCCGGGCAGCTACC
TCAGAGTTTGAGTTCACTATCAACACGGCCGTTACCTGAGCCGCTGCAAGCTAGTCTTTGGAGCCCATCT
GCAGTCTGTGGTATGACCACTCCTCCTACGCTCTCTGAAATGTCCCGGCTGATTTGTCACATCCATACA
GTAAGGCCTTTGGTACTACCACTGGTGGAAAAGGAACTCCTTCAGGAACCCAGCGACCTCTCTCCCC
AGCCCCGCTTGTCCCAAGACGACTGTGCGCACGGTCCAGCCTCCAGGCTCAGCCACACCCCCCAGG
AAGGAAGAAGAGCAGATTCTTCAAGGCCTTACCTACCAGACAGCAGGATGTTCCGAGTGACCCGGAT
TAGAGGATCTACCTGGAAGCAAAGTTCCGTCACTCTGAGGAATCTACCAGATTTCTAGGTGACCTGGC
TTCAGAGGAAGACAGTATAGAGAAAGATAAGGAAGAAGCTGCGATCTAAAGAGCTTTCTGAGATCACC
ACTGCAGAGGCGGATCCTGTAGCTCCTCGAGGGGCTTTGACTCTCCCTTCTACCAGACAGTCTCTCTG
GTTCTCAGCGGAAGACTCACTCAGCAGCCTCTGGACTCAGGGCTCAGCGTGAACCCTGAGCCTTTGCA



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RefSeq: [NM_021854.1](#), [NP_068626.1](#)

RefSeq Size: 3492 bp

RefSeq ORF: 3492 bp

Locus ID: 60445

UniProt ID: [Q9Z136](#)

Cytogenetics: 3p12

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 (By similarity). Increases ATP binding to HSP90AA1 and inhibits HSP90AA1 ATPase activity (By similarity). 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]