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Product datasheet for MR231634

Tsc1 (NM_001289575) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Tsc1 (NM_001289575) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Tsc1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>MR231634 representing NM_001289575 Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGGCCCAGTTAGCCAACATTGGGGAGCTGCTCTCCATGCTGGACTCCTCCACACTGGGTGTGCGGGATG ACGTGACAGCCATCTTCAAGGAGTCCCTCAATTCTGAACGTGGGCCTATGCTTGTCAACACGTTGGTTGA TTATTACCTGGAAACCAATTCTCAGCCGGTATTGCACATCCTGACCACCTTGCAGGAGCCACACGATAAG CACCTCTTGGACAAAATTAATGAGTATGTAGGCAAAGCTGCTACCCGTTTATCCATCCTCTCGCTGCTGG GGCATGTTGTGAGACTGCAGCCATCTTGGAAGCATAAGCTCTCTCAAGCACCTCTTCTGCCTTCTTTATT GAAATGTCTCAAGATGGACACTGATGTTGTGGTCCTCACAACTGGTGTCTTGGTGTTGATCACCATGCTC CCGATGATCCCGCAGTCAGGGAAGCAGCACCTTCTCGACTTCTTTGACATCTTTGGCCGTCTCTCGTCAT GGTGCCTGAAGAAACCAGGCCATGTGACAGAAGTGTACCTGGTCCATCTTCATGCCAGTGTTTATGCCCT CTTTCACCGCCTTTATGGGATGTACCCATGTAACTTCGTCTCCTTCCTGCGCTCTCACTACAGTATGAAG GAAAACGTGGAGACTTTTGAAGAAGTGGTCAAGCCAATGATGGAGCATGTGCGAATTCACCCGGAATTAG TGACTGGATCCAAGGACCATGAACTGGACCCTCGAAGGTGGAAGACATTAGAAACTCATGATGTTGTAAT AGAGTGTGCCAAAATCTCTCTGGACCCTACAGAAGCCTCGTATGAAGATGGCTATTCTGTGTCACACCAG CTCTCTGCTTGCTTCCCTTACCGTTCAGCTGATGTCACCACCAGCCCTTATGTGGACACACAGAATAGCT ATGGGGGTTCTACTTCCACCCCTTCCTCCAGCTCTCGGCTGATGTTGTTCAGTCCACCTGGGCAGCTACC TCAGAGTTTGAGTTCCCCATCAACACGGCTGTTACCTGAGCCGCTGCAAGCTAGTCTCTGGAGCCCATCT GCGGTCTGTGGTATGACCACTCCTCCTACGTCTCCTGGAAATGTCCCAGCTGATTTGTCACATCCGTATA GTAAAGCCTTTGGTACCACTGCAGGTGGAAAAGGAACTCCTTCAGGAACCCCAGCGACCTCTCCTCCTCC AGCCCCACCTTGTCCCCAAGATGACTGTGTGCATGGTTCAGCAGCCCAGGCCTCAGCCACAGCCCCCAGG AAGGAAGAAAGAGCAGATTCCTCAAGGCCTTACCTTCACAGACAGTCAAACGACCGAGGATTAGAGGATC CACCTGGAAGCAAAGGTTCCGTTACTCTGAGGAATCTACCTGATTTCCTAGGTGATCTGGCTTCTGAGGA AGACAGTATCGAGAAAGATAAGGAAGAAGCTGCAATATCTAAAGAGCTTTCTGAGATCACTACTGCAGAG GCGGATCCTGTAGTTCCTCGAGGGGGCTTTGACTCTCCCTTCTACCGAGACAGTCTCTCTGGCTCTCAGC GGAAGACTCATTCGGCAGCCTCTGGGACTCAGGGCTCCAGCGTGAACCCTGAGCCTTTGCACTCCTCCCT GGACAAACATGGGCCTGACACACCAAAGCAAGCCTTTACTCCCATAGACCCACCCTCTGGCAGTGCTGAT

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Protein Sequence:

>MR231634 representing NM_001289575
Red=Cloning site Green=Tags(s)

MAQLANIGELLSMLDSSTLGVRDDVTAIFKESLNSERGPMLVNTLVDYYLETNSQPVLHILTTLQEPHDK
HLLDKINEYVGKAATRLSILSLLGHVVRLQPSWKHKLSQAPLLPSLLKCLKMDTDVVVLTTGVLVLITML
PMIPQSGKQHLLDFFDIFGRLSSWCLKKPGHVTEVYLVHLHASVYALFHRLYGMYPCNFVSFLRSHYSMK
ENVETFEEVVKPMMEHVRIHPELVTGSKDHELDPRRWKTLETHDVVIECAKISLDPTEASYEDGYSVSHQ
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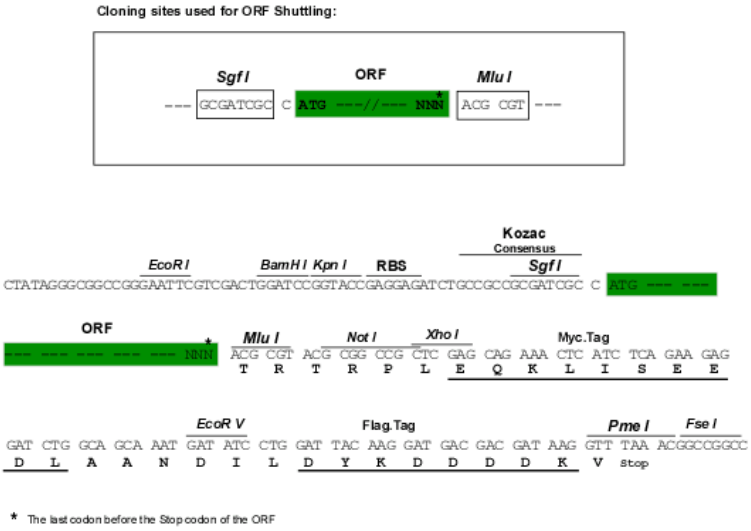
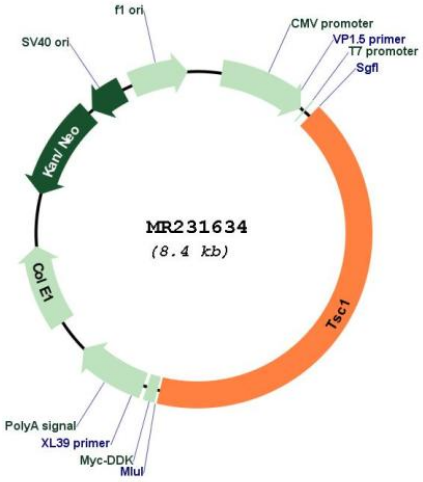
Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001289575

ORF Size: 3483 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_001289575.1, NP_001276504.1
RefSeq Size:	7732 bp
RefSeq ORF:	3486 bp
Locus ID:	64930
UniProt ID:	Q9EP53
Cytogenetics:	2 A3
MW:	129.2 kDa
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]