

## Product datasheet for **RC402360**

### Tuberin (TSC2) (NM\_000548) Human Mutant ORF Clone

#### Product data:

Product Type:	Mutant ORF Clones
Product Name:	Tuberin (TSC2) (NM_000548) Human Mutant ORF Clone
Mutation Description:	S554X
Affected Codon#:	554
Affected NT#:	1661
Nucleotide Mutation:	TSC2 Mutant (S554X), Myc-DDK-tagged ORF clone of Homo sapiens tuberous sclerosis 2 (TSC2), transcript variant 1 as transfection-ready DNA
Effect:	Tuberous sclerosis
Symbol:	TSC2
Synonyms:	LAM; PPP1R160; TSC4
E. coli Selection:	Kanamycin (25 ug/mL)
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
Tag:	Myc-DDK
ACCN:	NM_000548
ORF Size:	1659 bp
Restriction Sites:	Sgfl-XhoI



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**ORF Nucleotide Sequence:**

>RC402360 representing NM\_000548  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGCCAAACCAACAAGCAAAGATTAGGCTTGAAGGAGAAGTTAAGATTCTGTTGGGACTGGGAACAC  
 CGAGGCCAAATCCCAGGTCTGCAGAGGGTAAACAGACGGAGTTATCATCACCGCGAAATACTGAGAGA  
 ACTGAGCATGGAATGTGGCCTCAACAATCGCATCCGGATGATAGGGCAGATTTGTGAAGTCGAAAAACC  
 AAGAAATTTGAAGAGCACGCAGTGAAGCACTCTGGAAGGCGGTGCGGGATCTGTTGCAGCCGGAGCGGC  
 CGCTGGAGGCCCGGCACGCGGTCTGGCTCTGCTGAAGGCCATCGTGCAGGGCAGGGCAGCGTTTGGG  
 GGTCTCAGAGCCCTCTCTTTAAGGTCATCAAGGATTACCTTCCAACGAAGACCTTACGAAAGGCTG  
 GAGTTTTCAAGGCCCTCACAGACAATGGGAGACATCACCTACTTGGAGGAAGAGCTGGCTGACTTTG  
 TCCTGCAGTGGATGGATGTTGGCTTGTCTCGGAATTCCTTCTGGTGTGGTGAACCTGGTCAAATCAA  
 TAGCTGTTACCTCGACGAGTACATCGCAAGGATGGTTCAGATGATCTGTCTGCTGTGCGTCCGGACCGCG  
 TCCTCTGTGGACATAGAGGTCTCCCTGCAGGTGCTGGACGCCGTGGTCTGCTACAACCTGCCGGCTG  
 AGAGCCTCCCGCTGTTATCGTTACCCTCTGTGCGACCATCAACGTCAAGGAGCTCTGCGAGCCTTGCTG  
 GAAGCTGATGCGGAACCTCCTTGGCACCCACCTGGGCCACAGCGCCATCTACAACATGTGCCACCTCATG  
 GAGGACAGAGCCTACATGGAGGACGCGCCCTGCTGAGAGGAGCCGTGTTTTTGTGGGCATGGCTCTCT  
 GGGGAGCCACCGGCTCTATTCTCTCAGGAACCTGCGGACATCTGTGTTGCCATCATTTTACCAGGCCAT  
 GGCATGTCCGAACGAGGTGGTGTCTATGAGATCGTCTGTCCATCACCAGGCTCATCAAGAAGTATAGG  
 AAGGAGCTCCAGTGGTGGCTGGGACATCTGCTGAACATCATCGAACGGCTCCTTACGACGCTCCAGA  
 CCTTGGACAGCCCGGAGCTCAGGACCATCGTCCATGACCTGTTGACCAGGTGGAGAGCTGTGTGACCA  
 GAACGAGTCCACGGGTCTCAGGAGAGATACTTTGAACCTGGTGGAGAGATGTGCGGACCAGAGCCCTGAG  
 TCCTCCCTCCTGAACCTGATCTCCTATAGAGCGCAGTCCATCCACCCGGCCAAGGACGGCTGGATTGAGA  
 ACCTGCAGGCGCTGATGGAGAGATTCTCAGGAGCGAGTCCCGAGGCGCCGTGCGCATCAAGGTGCTGGA  
 CGTGTCTCCTTTGTGCTGCTCATCAACAGGCAGTTCTATGAGGAGGAGCTGATTAACCTCAGTGGTCATC  
 TCGCAGCTCTCCACATCCCGAGGATAAAGACCACAGGTCCGAAAGCTGGCCACCCAGTTGCTGGTGG  
 ACCTGGCAGAGGGCTGCCACACACCACTTCAACAGCCTGCTGGACATCATCGAGAAGGTGATGGCCCG  
 CTCCTCTCCCCACCCCGAGCTGGAAGAAAGGGATGTGGCCGCATAC

AG**GCGACCG**ACGCGTACGCGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
 TGGATTACAAGGATGACGACGA TAAGGTTTAA

**Protein Sequence:**

>RC402360 representing NM\_000548  
 Red=Cloning site Green=Tags(s)

MAKPTSKDSSLKEKFKILLGLGTPRPNRPSAEGKQTEFIITAEILRELSMECGLNRRIRMIQICEVAKT  
 KKFEHAEVALWKAVADLLQPERPLEARHAVLALLKAIVQGQGERLGVLRALFFKVIKDYPNSNEDLHERL  
 EVFKALTDNGRHITYLEEELADFLVQWMDVGLSSEFLLVNLVKFNCSYLDEYIARMVQMICLLCVRTA  
 SSVSDIEVSLQVLDVAVVCYNLPAESLPLFIVTLCRTINVKELCEPCWKLNRNLLGTHLGHSAIYNMCHLM  
 EDRAVMEDAPLLRGAVFFVGMALWGAHRLYSLRNSPTSVLPSFYQAMACPNEVVSYEIVLSITRLIKKYR  
 KELQVVAWDILLNIIERLLQQLQTLDSPELRTIVHDLTTVEELCDQNEFHGSQERYFELVERCADQRPE  
 SLLNLSYRAQSIHPAKDGWIQNLQALMERFRSESRGAVRIKVLVDLVSFVLLINRQFYEEELINSVVI  
 SQLSHIPEDKDHQVRKLATQLLDLAEGCHTHHFNSLLDIIKVMARSLSPPELEERDVAAY

**SGP**TRRRLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-XhoI



RefSeq ORF:	5424 bp
Locus ID:	7249
Cytogenetics:	16p13.3
Domains:	Rap_GAP, Tuberin
Protein Families:	Druggable Genome
Protein Pathways:	Insulin signaling pathway, mTOR signaling pathway, p53 signaling pathway
MW:	60.8 kDa
Gene Summary:	Mutations in this gene lead to tuberous sclerosis complex. Its gene product is believed to be a tumor suppressor and is able to stimulate specific GTPases. The protein associates with hamartin in a cytosolic complex, possibly acting as a chaperone for hamartin. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jul 2008]