

Product datasheet for **RC402362**

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:	Y598X
Affected Codon#:	598
Affected NT#:	1794
Nucleotide Mutation:	TSC2 Mutant (Y598X), 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:	1791 bp
Restriction Sites:	SgfI-XhoI



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ORF Nucleotide Sequence:

>RC402362 representing NM_000548
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCCAAACCAACAAGCAAAGATTAGGCTTGAAGGAGAAGTTAAGATTCTGTGGGACTGGGAACAC
 CGAGGCCAAATCCCAGGTCTGCAGAGGGTAAACAGACGGAGTTTATCATCACCGCGAAATACTGAGAGA
 ACTGAGCATGGAATGTGGCCTCAACAATCGCATCCGGATGATAGGGCAGATTTGTGAAGTCGAAAAACC
 AAGAAATTTGAAGAGCACGCAGTGAAGCACTCTGGAAGGCGGTGCGGGATCTGTTGCAGCCGGAGCGGC
 CGCTGGAGGCCCGGCACGCGGTCTGGCTCTGCTGAAGGCCATCGTGCAGGGCAGGGCAGCGTTTGGG
 GGTCTCAGAGCCCTCTCTTTAAGGTCATCAAGGATTACCTTCCAACGAAGACCTTACGAAAGGCTG
 GAGTTTTCAAGGCCCTCACAGACAATGGGAGACATCACCTACTTGGAGGAAGAGCTGGTGACTTTG
 TCCTGCAGTGGATGGATGTTGGCTTGTCTCGGAATTCCTTCTGGTGTGGTGAACCTGGTCAAATCAA
 TAGCTGTTACCTCGACGAGTACATCGCAAGGATGGTTCAGATGATCTGTCTGCTGTGCGTCCGGACCGCG
 TCCTCTGTGGACATAGAGGTCTCCCTGCAGGTGCTGGACGCCGTGGTCTGCTACAACCTGCCTGCCGGCTG
 AGAGCCTCCCGCTGTTTATCGTTACCCTCTGTGCGACCATCAACGTCAAGGAGCTCTGCGAGCCTTGCTG
 GAAGCTGATGCGGAACCTCCTTGGCACCCACCTGGGCCACAGCGCCATCTACAACATGTGCCACCTCATG
 GAGGACAGAGCCTACATGGAGGACGCGCCCTGCTGAGAGGAGCCGTGTTTTTGTGGGCATGGCTCTCT
 GGGGAGCCACCGGCTCTATTCTCTCAGGAACCTGCGGACATCTGTGTTGCCATCATTTTACCAGGCCAT
 GGCATGTCCGAACGAGGTGGTGTCTATGAGATCGTCTGTCCATCACCAGGCTCATCAAGAAGTATAGG
 AAGGAGCTCCAGTGGTGGCGTGGGACATCTGCTGAACATCATCGAACGGCTCCTTACGAGCTCCAGA
 CCTTGGACAGCCCGGAGCTCAGGACCATCGTCCATGACCTGTTGACCACGGTGGAGGAGCTGTGTGACCA
 GAACGAGTCCACGGGTCTCAGGAGAGATACTTTGAACCTGGTGGAGAGATGTGCGGACCGAGGCCCTGAG
 TCCTCCCTCTGAACCTGATCTCTATAGAGCGCAGTCCATCCACCCGGCCAAGGACGGCTGGATTGAGA
 ACCTGCAGGCGCTGATGGAGAGATTCTCAGGAGCGAGTCCCGAGGCGCCGTGCGCATCAAGGTGCTGGA
 CGTGTCTCTTTGTGCTGCTCATCAACAGGAGTCTATGAGGAGGAGCTGATTAACCTAGTGGTCTATC
 TCGCAGCTCTCCACATCCCGAGGATAAAGACCACCAGGTCCGAAAGCTGGCCACCCAGTTGCTGGTGG
 ACCTGGCAGAGGGCTGCCACACACCACTTCAACAGCCTGCTGGACATCATCGAGAAGGTGATGGCCCG
 CTCCTCTCCCCACCCCGAGCTGGAAGAAAGGGATGTGGCCGATACTCGGCCTCCTGGAGGATGTG
 AAGACAGCCGTCTGGGGCTTCTGGTATCCTTCAGACCAAGCTGTACACCTGCCTGCAAGCCACGCCA
 CGCGTGTATGAGATGCTGGTACGCCACATTCAGCTCCAC

AG**GCGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGA TAAGGTTTAA

Protein Sequence:

>RC402362 representing NM_000548
 Red=Cloning site Green=Tags(s)

MAKPTSKDSGLKEKFKILLGLGTPRPNRPSAEGKQTEFIITAEILRELSMECGLNNRIRMIGQICEVAKT
 KKFEHAEVALWKAVADLLQPERPEARHAVLALLKAIVQGQGERLGVLRALFFKVIKDYPNSNEDLHERL
 EVFKALTDNGRHITYLEEELADFVLQWMDVGLSSEFLLVLVNLVKFNLCYLDEYIARMVQMICLLCVRTA
 SSV DIEVSLQVLDAVVCYNCLPAESLPLFIVTLCRTINVKELCEPCWKLNRNLLGTHLGHSAIYNMCHLM
 EDRAVMEDAPLLRGAVFFVGMALWGAHRLYSLRNSPTSVLPSFYQAMACPNVVSYEIVLSITRLIKKYR
 KELQVVAWDILLNIIERLLQQLQTLDSPELRTIVHDLTTVEELCDQNEFHGSQERYFELVERCADQRPE
 SLLNLSYRAQSIHPAKDGIQNLQALMERFFRSESRGAVRIKVLVLSFVLLINRQFYEEELINSVVI
 SQLSHIPEDKDHQVRKLATQLLVDLAEGCHTHHFNSLLDIIIEKVMARSLSPPELEERDVAAYSASLEDV
 KTAVLGLLVILQTKLYLPASHATRVYEMLVSHIQLH

SGP**TRRRLEQKLI**SEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-XhoI

Cytogenetics:	16p13.3
Domains:	Rap_GAP, Tuberin
Protein Families:	Druggable Genome
Protein Pathways:	Insulin signaling pathway, mTOR signaling pathway, p53 signaling pathway
MW:	65.7 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]