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Product datasheet for SC337992

TBC1D4 (NM_001286658) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TBC1D4 (NM_001286658) Human Untagged Clone
Tag:	Tag Free
Symbol:	TBC1D4
Synonyms:	AS160; NIDDM5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_001286658, the custom clone sequence may differ by one or more nucleotides

ATGGAGCCGCCCAGCTGCATTCAGGATGAGCCGTTCCCGCACCCCCTGGAGCCCGAGCCGGGCGTCTCAG
CTCAGCCCGGCCCCGGGAAGCCAAGCGATAAGCGGTTCCGGCTGTGGTACGTTGGGGGGTCGTGCCTGGA
CCACAGGACCACGCTGCCTATGCTGCCCTGGCTCATGGCCGAGATCCGCAGGCGCAGCCAGAAGCCCGAG
GCGGGCGGCTGCGGGGCGCCGGCGGCCCGAGAGGTGATCCTGGTGCTCAGCGCGCCCTTCCTGCGTTGCG
TCCCCGCGCCGGGCGCTGGGGCCTCGGGGGGCACTAGTCCGTCGGCCACGCAGCCCAACCCGGCGGTATT
CATCTTCGAGCACAAGGCGCAGCATATCTCGCGCTTCATCCACAACAGCCACGACCTCACCTACTTTGCC
TACCTGATCAAGGCGCAGCCCGACGACCCCGAGTCGCAGATGGCCTGCCACGTTTTCCGCGCCACAGACC
CCAGCCAGGTTCCTGATGTTATTAGCAGCATAAGGCAATTATCTAAAGCGGCCATGAAAGAGGATGCCAA
ACCCAGCAAAGATAATGAGGACGCCTTTTACAACTCTCAGAAGTTCGAAGTCCTGTACTGTGGAAAGGTG
ACCGTGACCCACAAGAAGGCCCCCTCAAGCCTCATCGATGACTGCATGGAGAAGTTCAGCCTGCACGAAC
AGCAGCGCCTGAAGATCCAAGGGGAGCAGCGCGGTCCGGACCCAGGAGAGGACCTGGCTGACTTGGAGGT
GGTGGTGCCCGGGTCCCCCGGAGACTGCCTGCCGGAGGAGGCTGACGGCACCGACACCCACCTTGGCTTA
CCTGCCGGGGCCAGCCAGCCTGCCCTGACCAGCTCTCGGGTCTGCTTCCCTGAGCGGATTTTGGAAGATT
CTGGCTTTGATGAGCAGCAGGAGTTTCGGTCTCGGTGCAGCAGTGTCACCGGCGTGCAACGGAGAGTTCA
CGAGGGCAGCCAGAAATCCCAGCCGCGACGGAGACACGCGAGCGCACCCAGTCACGTCCAGCCCTCGGAC
TCGGAGAAGAACAGGACCATGCTCTTCCAGGTTGGGCGATTTGAGATTAACCTTATCAGTCCAGACACTA
AATCAGTTGTGCTAGAAAAGAATTTTAAAGATATCTCCTCTTGTTCTCAGGGTATAAAGCATGTGGATCA
CTTTGGCTTTATCTGCCGGGAGTCTCCAGAGCCTGGACTTAGCCAGTATATTTGTTATGTATTCCAGTGT
GCCAGCGAATCTCTGGTTGATGAGGTAATGCTGACTCTGAAACAGGCCTTCAGTACGGCGGCTGCCCTGC
AGAGTGCCAAGACGCAGATTAAACTGTGTGAGGCCTGCCCGATGCACTCTTTGCATAAGCTCTGTGAAAG
GATTGAAGGTCTCTACCCACCAAGAGCCAAGCTGGTGATACAGAGGCATCTCTCATCACTGACAGATAAT
GAGCAAGCTGACATCTTTGAAAGAGTTCAGAAAATGAAGCCAGTCAGTGACCAGGAAGAAAATGAACTTG
TGATTTTACACCTGAGGCAGCTGTGTGAAGCCAAGCAGAAGACACACGTGCACATCGGGGAAGGCCCTTC

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TACTATTTCAAATAGTACAATCCCAGAAAATGCAACAAGCAGTGGAAGGTTCAAACTTGACATTCTGAAA
AATAAAGCTAAGAGATCCTTAACTAGCTCCCTGGAAAATATCTTCTCAAGGGGAGCTAACAGAATGAGAG
GTCGGCTTGGAAGTGTGGACAGTTTTGAACGGTCCAACAGTCTTGCTTCAGAGAAGGACTACTCACCAGG
GGATTCTCCACCAGGGACACCGCCAGCGTCCCCACCGTCCTCAGCTTGGCAAACGTTTCCCGAAGAGGAT
TCCGACTCCCCGCAGTTTCGAAGACGGGCACACACGTTCAGCCACCCACCTTCAAGCACAAAGAGAAAGC
TGAATTTGCAGGATGGGAGGGCTCAGGGTGTGCGTTCCCCTCTGCTGAGGCAGAGCTCCAGTGAACAGTG
CAGCAATCTTTCGTCAGTTCGACGCATGTACAAGGAGAGTAATTCTTCCTCCAGTCTTCCAAGTCTTCAC
ACTTCCTTCTCTGCCCCTTCCTTCACTGCCCCCTCTTTCCTGAAAAGCTTTTACCAGAATTCAGGTAGAC
TGTCCCCACAGTATGAAAATGAAATCAGTGATGGAGAAGGGAGAAAAAGGACCTCATCTACCTGCAGCAA
TGAGTCCCTAAGTGTGGGAGGAACCTCTGTCACTCCTCGCCGGATCTCCTGGCGGCAGCGCATTTTCCTC
AGGGTTGCTTCTCCCATGAACAAATCTCCCTCAGCAATGCAACAGCAAGATGGATTGGACAGGAACGAGC
TGCTGCCACTGTCCCCCCTCTCTCCAACCATGGAGGAGGAACCGCTGGTTGTATTCCTGTCTGGGGAGGA
TGACCCAGAAAAGATTGAAGAAAGAAAGAAATCAAAAGAACTGAGGAGCTTGTGGAGAAAAGCTATACAC
CAACAAATCTTGTTACTTCGAATGGAAAAAGAAAACCAGAAACTTGAAGCAAGCAGAGATGAACTCCAGT
CCAGAAAAGTTAAATTAGACTATGAAGAAGTTGGTGCATGTCAGAAAGAGGTCTTAATAACTTGGGATAA
GAAGTTGTTAAACTGCAGAGCTAAAATCAGATGTGATATGGAAGATATTCATACTCTTCTTAAAGAAGGA
GTTCCCAAAAGTCGACGAGGAGAAATTTGGCAGTTTCTGGCTTTACAGTACCGACTCAGACACAGATTGC
CTAATAAACAACAGCCTCCTGACATATCCTATAAGGAACTTTTGAAGCAGCTCACTGCTCAGCAGCATGC
GATTCTCGTGGATTTAGGAAGGACGTTTCCTACTCACCCTTACTTTTCAGTACAGCTTGGGCCAGGACAG
CTGTCACTGTTTAACCTCCTGAAAGCCTATTCTTTGCTGGACAAAGAAGTGGGATACTGTCAGGGGATCA
GCTTTGTGGCTGGAGTCCTGCTTCTGCACATGAGTGAAGAGCAAGCCTTTGAAATGCTGAAATTCCTCAT
GTATGACCTCGGCTTCCGCAAGCAGTACAGACCTGACATGATGTCGCTGCAGATTCAAATGTACCAGCTG
TCCAGGCTCCTTCATGACTATCACAGAGATCTCTACAATCACCTTGAAGAAAATGAAATCAGCCCCAGTC
TTTATGCTGCCCCCTGGTTCCTCACATTGTTTGCCTCTCAGTTTTCATTAGGATTTGTAGCCAGAGTTTT
TGATATTATTTTTCTTCAGGGAACTGAAGTTATATTCAAGGTTGCACTCAGCCTACTGAGCAGCCAAGAG
ACACTTATAATGGAATGTGAGAGCTTTGAAAATATTGTTGAGTTTCTTAAAAACACGCTACCTGATATGA
ATACCTCTGAAATGGAAAAAATTATTACCCAGGTTTTTGAGATGGATATTTCTAAGCAGTTGCATGCCTA
TGAGGTGGAATATCATGTGCTACAGGATGAGCTTCAGGAATCTTCATATTCCTGTGAGGATAGTGAAACT
TTGGAGAAGCTGGAGAGGGCCAATAGCCAACTGAAAAGACAAAACATGGACCTCCTAGAAAAATTACAGG
TAGCTCATACTAAAATCCAGGCCTTGGAATCAAACCTGGAAAATCTTTTGACGAGAGAGACCAAAATGAA
GTCTTTAATCCGGACCCTGGAACAAGAAAAAATGGCTTATCAAAAGACAGTGGAGCAACTCCGGAAGCTG
CTGCCCGCGGATGCTCTAGTCAATTGTGACCTGTTGCTGAGAGACCTAAACTGCAACCCTAACAACAAAG
CCAAGATAGGAAATAAGCCATAA

Restriction Sites: SgfI-MluI

ACCN: NM_001286658

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).

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_001286658.2, NP_001273587.1
RefSeq Size:	6419 bp
RefSeq ORF:	3873 bp
Locus ID:	9882
UniProt ID:	O60343
Cytogenetics:	13q22.2
Gene Summary:	This gene is a member of the Tre-2/BUB2/CDC16 domain family. The protein encoded by this gene is a Rab-GTPase-activating protein, and contains two phopshotyrosine-binding domains (PTB1 and PTB2), a calmodulin-binding domain (CBD), a Rab-GTPase domain, and multiple AKT phosphomotifs. This protein is thought to play an important role in glucose homeostasis by regulating the insulin-dependent trafficking of the glucose transporter 4 (GLUT4), important for removing glucose from the bloodstream into skeletal muscle and fat tissues. Reduced expression of this gene results in an increase in GLUT4 levels at the plasma membrane, suggesting that this protein is important in intracellular retention of GLUT4 under basal conditions. When exposed to insulin, this protein is phosphorylated, dissociates from GLUT4 vesicles, resulting in increased GLUT4 at the cell surface, and enhanced glucose transport. Phosphorylation of this protein by AKT is required for proper translocation of GLUT4 to the cell surface. Individuals homozygous for a mutation in this gene are at higher risk for type 2 diabetes and have higher levels of circulating glucose and insulin levels after glucose ingestion. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Aug 2015] Transcript Variant: This variant (2) lacks an alternate in-frame exon in the central coding region, compared to variant 1. The encoded isoform (2) is shorter than isoform 1. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.