

Product datasheet for SC309926

TBC1D4 (NM_014832) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TBC1D4 (NM_014832) 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:	>SC309926 representing NM_014832. Blue=Insert sequence Red=Cloning site Green=Tag(s)

GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGAGCCGCCAGCTGCATTAGGATGAGCCGTTCCCGCACCCCTGGAGCCCGAGCCGGGCGTCTCA
GCTCAGCCCGGCCCGGGAAGCCAAGCGATAAGCGGTTCCGGCTGTGGTACGTTGGGGGTCGTGCCTG
GACCACAGGACCAGCTGCCTATGCTGCCCTGGCTCATGGCCGAGATCCGACGGCGAGCCAGAAGCCC
GAGGCGGGCGGCTGCGGGGCGCCGGCGGCCGAGAGGTGATCCTGGTGTGCTCAGCGCGCCCTTCTGCGT
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TTTGCCTACCTGATCAAGGCGCAGCCCGACGACCCGAGTCGCAGATGGCCTGCCAGTTTTCCGGGCC
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GATGCCAAACCCAGCAAAGATAATGAGGACGCCTTTTACAACCTCTCAGAAGTTCGAAGTCTGTACTGT
GGAAAGGTGACCGTGACCCACAAGAAGGCCCTCAAGCCTCATCGATGACTGCATGGAGAAGTTCAGC
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GACTTGGAGGTGGTGGTCCCGGGTCCCGGAGACTGCCTGCCGAGGAGGCTGACGGCACCGACACC
CACCTTGGCTTACCTGCCGGGGCCAGCCAGCCTGCCCTGACCAGCTCTCGGGTCTGCTTCCCTGAGCGG
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CAACGGAGAGTTACAGAGGGCAGCCAGAAATCCAGCCGCGAGAGACACGCGAGCGCACCCAGTAC
GTCAGCCCTCGGACTCGGAGAAGAACAGGACCATGCTCTTCCAGGTTGGGCGATTTGAGATTAACCTT
ATCAGTCCAGACACTAAATCAGTTGTGCTAGAAAAGAATTTAAAGATATCTCCTTGTCTCAGGGT
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AGTACGGCGGCTGCCCTGCAGAGTGCCAAGACGCAGATTAACCTGTGTGAGGCCTGCCGATGCACTCT
TTGCATAAGCTCTGTGAAAGATTGAAGTCTCTACCCACCAAGGCCAAGCTGGTGATACAGGGCAT
CTCTCACTGACAGATAATGAGCAAGCTGACATCTTTGAAAGAGTTTCAGAAAAAGCCAGTCAGT



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GACCAGGAAGAAAATGAACTTGTGATTTTACACCTGAGGCAGCTGTGTGAAGCCAAGCAGAAGACACAC
 GTGCACATCGGGGAAGGCCCTTCTACTATTTCAAATAGTACAATCCCAGAAAATGCAACAAGCAGTGGA
 AGGTTCAAACCTTGACATTCTGAAAAATAAAGCTAAGAGATCCTTAACTAGCTCCCTGGAAAAATCTTC
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 GTTAAATTAGACTATGAAGAAGTTGGTGCATGTGAAAAGAGGTCTTAATAACTGGGATAAGAAGTTG
 TAAAATGCAGAGCTAAAATCAGATGTGATATGGAAGATTTACTACTCTTCTTAAAGAAGGAGTTCCC
 AAAAGTCGACGAGGAGAAAATTTGGCAGTTTCTGGCTTTACAGTACCGACTCAGACACAGATTGCCTAAT
 AAACAACAGCCTCTGACATATCTATAAGGAACCTTTGAAGCAGCTCACTGCTCAGCAGCATGCGATT
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 CTTTATGCTGCCCTGGTTCTCTCACATTGTTTGCCTCTCAGTTTTTATTAGGATTTGTAGCCAGAGTT
 TTTGATATTATTTTCTCAGGGAAGTGAAGTTATATTCAAGGTTGCACTCAGCCTACTGAGCAGCCAA
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 GCCTATGAGGTGGAATATCATGTGCTACAGGATGAGCTTCAGGAATCTTCATATTCTGTGAGGATAGT
 GAACTTTGGAGAAGCTGGAGAGGGCCAATAGCCAAGTAAAAGACAAAACATGGACCTCTAGAAAAA
 TTACAGGTAGCTCATACTAAAATCCAGGCTTGAATCAAACCTGGAAAACTTTTGGACGAGAGAGACC
 AAAATGAAGTCTTTAATCCGGACCTGGAAACAAGAAAAATGGCTTATCAAAGACAGTGGAGCAACTC
 CGGAAGCTGCTGCCCGGGATGCTCTAGTCAATTTGACCTGTTGCTGAGAGACCTAAACTGCAACCCCT
 AACAAACAAGCCAAGATAGGAAATAAGCCATAA
 ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
 TACAAGGATGACGACGATAAGGTTTAAACGGCCGCGC

- Restriction Sites:** Sgfl-MluI
- ACCN:** NM_014832
- Insert Size:** 3897 bp
- 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).
- OTI Annotation:** This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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_014832.4](#)

RefSeq Size: 6443 bp

RefSeq ORF: 3897 bp

Locus ID: 9882

UniProt ID: [O60343](#)

Cytogenetics: 13q22.2

Domains: TBC, PID

MW: 146.6 kDa

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 phosphotyrosine-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 (1) represents the longest transcript and encodes the longest 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.