

## Product datasheet for **RC212105L3V**

### **TBC1D4 (NM\_014832) Human Tagged ORF Clone Lentiviral Particle**

#### **Product data:**

Product Type:	Lentiviral Particles
Product Name:	TBC1D4 (NM_014832) Human Tagged ORF Clone Lentiviral Particle
Symbol:	TBC1D4
Synonyms:	AS160; NIDDM5
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-Myc-DDK-P2A-Puro (PS100092)
Tag:	Myc-DDK
ACCN:	NM_014832
ORF Size:	3897 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(RC212105).
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. <a href="#">More info</a>
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
RefSeq:	<a href="#">NM_014832.1</a>
RefSeq Size:	5922 bp
RefSeq ORF:	3897 bp
Locus ID:	9882
UniProt ID:	<a href="#">O60343</a>
Cytogenetics:	13q22.2
Domains:	TBC, PID
MW:	146.4 kDa



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**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]