

Product datasheet for TP312105

TBC1D4 (NM_014832) Human Recombinant Protein

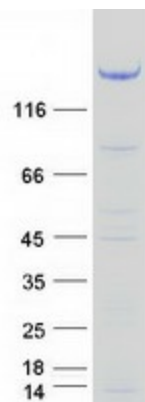
Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant protein of human TBC1 domain family, member 4 (TBC1D4), 20 µg
Species:	Human
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	Recombinant protein was produced with TrueORF clone, RC212105.
Tag:	C-Myc/DDK
Predicted MW:	146.4 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Preparation:	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	NP_055647
Locus ID:	9882
UniProt ID:	O60343
RefSeq Size:	5922
Cytogenetics:	13q22.2
RefSeq ORF:	3897
Synonyms:	AS160; NIDDM5


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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]

Product images:


Coomassie blue staining of purified TBC1D4 protein (Cat# TP312105). The protein was produced from HEK293T cells transfected with TBC1D4 cDNA clone (Cat# [RC212105]) using MegaTran 2.0 (Cat# [TT210002]).