

Product datasheet for PH312105

TBC1D4 (NM_014832) Human Mass Spec Standard

Product data:

Product Type:	Mass Spec Standards
Description:	TBC1D4 MS Standard C13 and N15-labeled recombinant protein (NP_055647)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC212105
Predicted MW:	146.4 kDa
Protein Sequence:	>RC212105 representing NM_014832 Red=Cloning site Green=Tags(s)

MEPPSCIQDEPFPHLEPEPGVSAQPGPGKPSDKRFRLWYVGGSCLDHRTTLPMLPWLMAEIRRRSQKPE
AGGCGAAPAAAREVILVLSAPFLRCVPAPGAGASGGTSPSATQPNPAVFI FEHKAQHISRFIHNSHDLTYFA
YLIIKAQDDPESQMACHVFRATDPSQVPDVISSIRQLSKAAMKEDAKPSKDNEDAFYNSQKFEVLYCGKV
TVTHKKAPSSLIDDCMEKFLSHEQQRLKIQGEQRGPDGDLADLEVVVPGSPGDCLPEEADGTDTHLGL
PAGASQPALTSRVCFPERILEDGSGFDEQQEFRSRCSSVTGVQRRVHEGSQKSQPRRRHASAPSHVQPSD
SEKNRTMLFQVGRFEINLISPDTKSVVLEKNFKDISSCSQGIKHVDHFGFICRESPEPGLSQYICYVFC
ASESLVDEVMLTLKQAFSTAAALQSAKTQIKLCEACPMHSLHKLCEIEGLYPPRAKLVIIQRHLSLTDN
EQADIFERVQKMPVSDQEENELVILHLRQLCEAKQKTHVHIGEGPSTISNSTIPENATSSGRFKLDILK
NKAKRSLTSSLENIFSRGANRMRGRLGVSDFERSNSLASEKDYSFGDSPPGTTPASPSSAWQTFPEED
SDSPQFRRAHTFSHPSSSTKRKLNLDQGRAQGVRSPLLRQSSSEQCSNLSVRRMYKESNSSSSLSLH
TSFSAPSFTAPSLKSFYQNSGRLSPQYENEIRQDTASESSDGEGRKRTSSTCSNESLSVGGTSTVPRRI
SWRQRIFLRVASPMNKSPSAMQQDGLDRNELLSSLPLSPTMEEEPVVFLSGEDDPEKIEERKSKELR
SLWRKAIHQIILLRMEKENQKLEGASRDELQSRKVKLDYEEVGACQKEVLITWDKLLNCRAKIRCDME
DIHTLLKEGVPKSRERGEIWQFLALQYRLRHLPNKQPPDISYKELLKQLTAQQHAILVDLGRFTPHPY
FSVQLGPGQLSLFNLLKAYSLLDKEVGYCQGISFVAGVLLLMSEEQAFEMLKFLMYDLGFRKQYRPDMM
SLQIQMYQLSRLLDHYHRDLYNHLEENEISPSLYAAPWFLTLFASQFSLGFVARVFDIIFLQGTVEIFKV
ALSLLSSQETLIMECESFENIVEFLKNTLPDMNTSEMEKIITQVFEMDISKQLHAYEVEYHVLQDELQES
SYSCEDSETLEKLERANSQKLRQNMDDLLEKLQVAHTKIQALESNLENLLTRETMMKSLIRTLEQEKMAYQ
KTVEQLRKLPLADALVNCDDLLRDLNCPNPKAKIGNKP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag:	C-Myc/DDK
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration:	>0.05 µg/µL as determined by microplate BCA method

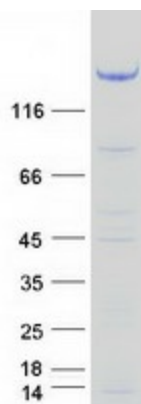


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Labeling Method:	Labeled with [U- ¹³ C ₆ , ¹⁵ N ₄]-L-Arginine and [U- ¹³ C ₆ , ¹⁵ N ₂]-L-Lysine
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3
Storage:	Store at -80°C. Avoid repeated freeze-thaw cycles.
Stability:	Stable for 3 months from receipt of products under proper storage and handling conditions.
RefSeq:	NP_055647
RefSeq Size:	5922
RefSeq ORF:	3897
Synonyms:	AS160; NIDDM5
Locus ID:	9882
UniProt ID:	O60343
Cytogenetics:	13q22.2

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]).