

Product datasheet for **RC204401**

TBC1D5 (NM_014744) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TBC1D5 (NM_014744) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TBC1D5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>RC204401 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGTATCATTCTTATCTGAAACTAGACATCCTCTGCAGCCAGAAGAACAAGAAGTAGGCATTGACCCCT
TGTCAGTTACTCTAACAAAGTCTGGAGGAGATTCAAATAAAAATGGAAGAAGAACAAGTTCTACTTTAGA
CTCTGAAGGGACTTTTAATTCCTATAGGAAGAATGGGAAGAACTATTTGTAAACAACAATTACTTGGCA
ACAATAAGGCAGAAAGGGATTAATGGGCAGCTGAGAAGCAGCAGGTTCCGCAGCATTGTGCTGGAAGCTAT
TTCTTTGTGTTCTTCTCAAGACAAAAGTCAATGGATAAGTAGAATTGAAGAATTAAGAGCATGGTATAG
CAACATTAAGAAATACATATTACCAACCCGAGGAAGGTTGTTGGCCAACAAGATTTGATGATCAATAAT
CCTCTTTCACAGGATGAAGGGAGTCTTTGGAACAAATCTTCAAGATAAAGAAGTTGATCAATGATTG
AACAGATGTCAAAGAAGCTTTCTGAAATGCAGTTTTTCCAGCAAGAAAATGTGAGAAAAATTTCTTAC
AGATGTTCTTTCTGTTATGCCAGAGAAAACGAGCAGTTGCTTTATAAACAGGGCATGCACGAAGCTTTA
GCACCTATAGTCTTTGTCTTCACTGTGACCACCAAGCTTTTCTACATGCCAGTGAAGTCTGCACAGCCCA
GTGAGGAAATGAAAAGTGTCTTGAACCTGAGTATCTGGAACATGATGCCTATGCAGTGTCTCACAACT
TATGAAAAGTGTGAACCTTGGTTTTCACTTTTGGAGCATGATGGTCCAGAGGGGAAAGAAACACTGATG
ACTCCCATTCCCTTGTAGACCACAAGATTTAGGGCCAACAATTGCTATTGTTACTAAAGTCAACCAGA
TCCAGGATCATCTACTGAAGAAGCATGATATTGAGCTTACATGCACTTGAACAGACTAGAAATTCACC
ACAGATATATGGGTTAAGGTGGGTGCGGCTGCTATTTGGACGAGAGTTCCCTGAGGACCTTCTGGTG
GTCTGGGATGCCTTGTGTCAGACGGCTCAGCCTGGGTTAGTAGATTATCTTCGTGCCATGTTAC
TTTACATCCGAGATGCTTTGATCTCTAGTAAGTACCAGACCTGTCTCGGCTTCTGATGCATTACCCATT
CATCGGGGATGTACACTCACTGATTCTTAAGGCTCTGTTCTTAGAGATCCAAAGAGAAAATCCAAGACCA
GTGACTTATCAATTCCATCCAAATTTAGATTATTACAAAGCACGAGGAGCAGACCTCATGAATAAAGCC
GGACCAATGCCAAAGGTGCTCCCTGAATATAAATAAGGTCTCTAATAGCCTGATTAATTTTGAAGAAA
GTTGATTTCCCAAGCAATGGCTCCAGGCAGTGCAGGTGGCCCTGTACCTGGAGGCAACAGCAGTAGCTCC
TCCTCTGTGTAATTCCTACCAGGACCTCAGCAGAGGCCCAAGCCATCACTTGAACAGCAACAGCAGC
AGCAGAGGCTGATGAAATCAGAAAGCATGCCTGTGCAATTGAACAAGGGCTAAGTTCTAAAAACATCAG
TTCATCTCCAAGCGTTGAGAGTTTGCCTGGAGGAAGAGAATTCAGTGGCTCTCCACCTTCATCTGCTACT
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CTGAAGAAGAATTAGAAGCCAAATTTCTTCTTCAAGGGCAGTTGAATGACCTGGATGCCATGTGCAA
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AAAGAAGATCAAATTCGGTTTCCCTGGCAGGATTAACAGATCAAAGACATTTAAAAGGTTCCCTGC
GTTTTAACAGAGCCAGCTAGAGGCCGAAGAGAACGAACAGATCACCATTTGCGGACAACCACTACTGCTC
CAGCGGCCAGGGCCAGGGCCGAGGCCAAGGCCAGAGCGTTCAAATGTGAGGGCCATTAAACAGGCTCT
TCAGAAACGCCAGGGTGCATGATAGAGGAATCCGATGACTTCATCTGATTTCCAAAGATGATGATG
GGAGCAGTGCCAGGGCTCCTTCTCCGGCCAGGCCAGCCTCTTCGACCCTCAGAAGCACCTCTGGGAA
AAGCCAGGCCAGTCTGCTCCCACTGGTGTCTCAGATCCACTGATGGGCCAGCCTCAGCTTCTCTCC
AGCAACCCAGCTCCAGTCTGATGACGACAGCAGCAAGGACTCTGGCTTACCATTGTGAGTCCCCTGG
ACATC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC204401 protein sequence
Red=Cloning site Green=Tags(s)

MYHSLSETRHPLQPEEQEVGIDPLSSYSNKSGGDSNKNRRTSSTLDSEGTFNYSRKEWEELFVNNNYLA
TIRQKINGQLRSSRFRSICWKLFLCVLPQDKSQWISRIEELRAWYSNIKEIHITNPRKVVGQQLMINN
PLSQDEGSLWNKFFQDKELRSMIEQDVKRTFPEMQFFQQENVRKILTDVLFYARENEQLLYKQGMHELL
APIVFLHCDHQAFHASESAQPSEEMKTVLNPEYLEHDAYAVFSQLMETAEPWSTFEHDGQKQKETLM
TPIPFARPDGLGPTIAIVTKVNIQDHLLKKHDIELYMHLNRLEIAPQIYGLRWVRLFGREFPLQDLLV
VWDALFADGLSLGLVDYIFVAMLLYIRDALISSNYQTCLGLMHYPFIGDVHSLILKALFLRDPKRNPRP
VTYQFHPNLDYYKARGADLMNKSRTNAKGAPLNINKVSNLSLINFGRKLISPAMAPGSAGGPVPGNSSSS
SSVVIPTRTSAEAPSHHLQQQQQQRLMKSEMPVQLNKGLSSKNISSSPSVESLPGGREFTGSPSSAT
KKDSFFSNISRSRSHSKTMGRKESEEELEAQISFLQQLNDLDAMCKYCAKVMMDTHLVNIQDVILQENLE
KEDQILVSLAGLKQIKDILKGLRFNQSQLEAEENEQITADNHYCSSGQGGQGGQGSVQMSGAIKQAS
SETPGCTDRGNSDDFILISKDDGSSARGSFSGQAQPLRTLRTSTSGKSQAPVCSPLVFSDFLMGPASASS
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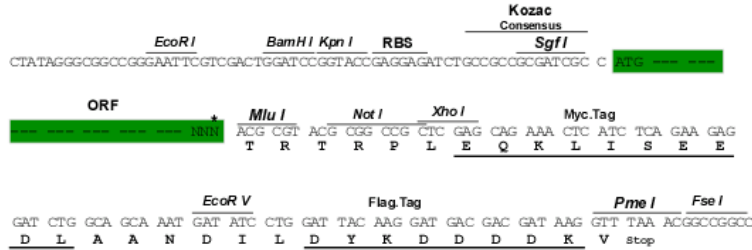
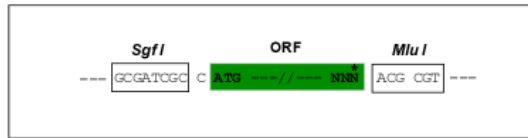
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6695_g01.zip

Restriction Sites: Sgfl-Mlul

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_014744

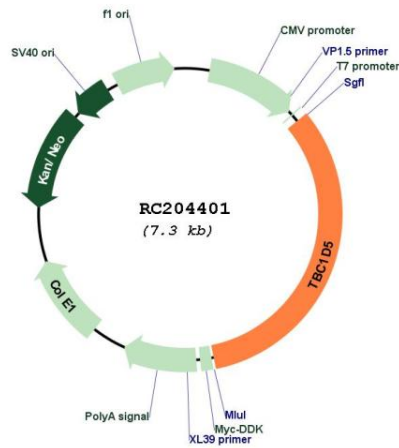
ORF Size: 2385 bp

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. [More info](#)
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

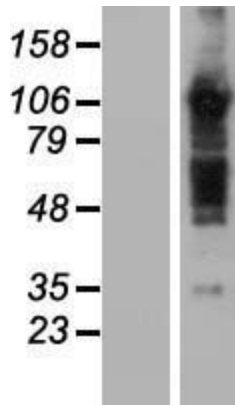
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<ol style="list-style-type: none">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_014744.2
RefSeq Size:	7869 bp
RefSeq ORF:	2388 bp
Locus ID:	9779
UniProt ID:	Q92609
Cytogenetics:	3p24.3
Domains:	TBC
MW:	89 kDa
Gene Summary:	May act as a GTPase-activating protein (GAP) for Rab family protein(s). May act as a GAP for RAB7A. Can displace RAB7A and retromer CSC subcomplex from the endosomal membrane to the cytosol; at least retromer displacement seems to require its catalytic activity (PubMed:19531583, PubMed:20923837). Required for retrograde transport of cargo proteins from endosomes to the trans-Golgi network (TGN); the function seems to require its catalytic activity. Involved in regulation of autophagy (PubMed:22354992). May act as a molecular switch between endosomal and autophagosomal transport and is involved in reprogramming vesicle trafficking upon autophagy induction. Involved in the trafficking of ATG9A upon activation of autophagy. May regulate the recruitment of ATG9A-AP2-containing vesicles to autophagic membranes (PubMed:24603492).[UniProtKB/Swiss-Prot Function]

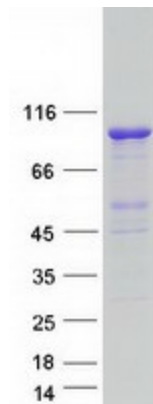
Product images:



Circular map for RC204401



Western blot validation of overexpression lysate (Cat# [LY427408]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC226171] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TBC1D5 protein (Cat# [TP304401]). The protein was produced from HEK293T cells transfected with TBC1D5 cDNA clone (Cat# RC204401) using MegaTran 2.0 (Cat# [TT210002]).