

## Product datasheet for **MR228818**

### **Tbc1d7 (NM\_001252640) Mouse Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Tbc1d7 (NM\_001252640) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Tbc1d7  
**Synonyms:** 2610009C09Rik  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**ORF Nucleotide Sequence:** >MR228818 representing NM\_001252640  
**Red=Cloning site Blue=ORF Green=Tags(s)**

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGACTGACGACTCTCAGAGGAACCTTCGATCAGTCTACTATGAGAAAGTCGGGTTTCGTGGTGTCAAG  
AAAAGAAATCACTGGAAATCCTCCTGAAAGATGACCGTTTGGACATCGAGAAGCTTGCACATTTAGCCA  
GAGGTTCCCTCTCCCATCCATGTATCGCGCGTTGGTATGGAAGGCGCTTCTAGGCATCTTACCTCCGCAC  
CATGACACTCATTCCCAGGTGATGGCCTACCGCAAAGACCAAGTACCATGACATCCTCCATGCCCTGACAG  
TCGTCCGTTTCATCAGTATGCCACGCCACAGGCTGAAGTGTATCTTCGCATGTATCAGCTTGAATCGGG  
GAAGCTACCTCGAAGTCCCTCTTTCTCTGGAGCCGGAGGATGAAGTCTTTCTTGCATCGCCAAGGCC  
ATGGAAGAGATGGTGAAGACAGTGTGGACTGTTACTGGATCAGCCGATGCTTCGTGAAGCAGTTAATA  
ACAAGTACAGGGACGCTTACCTCAGCTGCCAAGGCTTTCGAGCAGTACTTGAATCTGGAAGACAGTAG  
GCTGCTGAGTACCTGAAGACGTGTTCTGCAGTGTCCAACTGCCTTACGACCTCTGGTTCCAAAGGTGC  
TTCGCGGGATGCCTCCCCGAGTCCAGTTACAGAGGGTCTGGGATAAAGTCATTCCCTCAGGACAGCTCAG  
ATGCCATCGTGAGCAAGGCCATCGACTTGTGGCACAACACTGTGGGACCCAGTGCAATTCGGCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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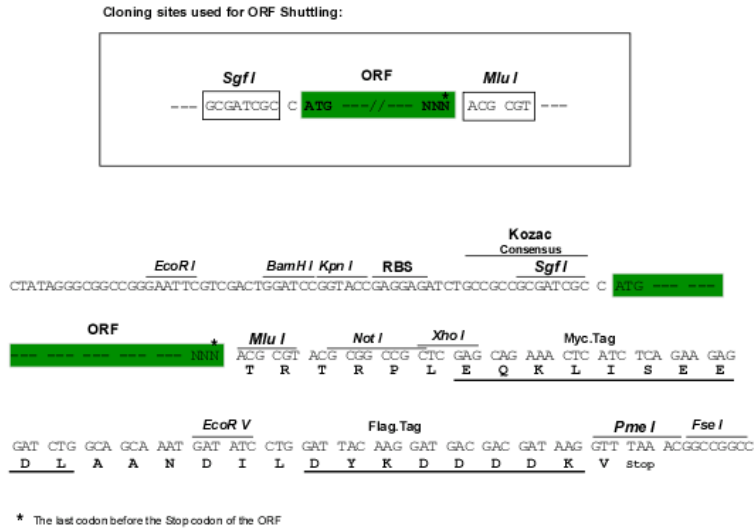
**Protein Sequence:** >MR228818 representing NM\_001252640  
 Red=Cloning site Green=Tags(s)

MTDDSQRNFRSVYYEKVGFGRGVEEKSLIILLKDDRLDIEKLCTFSQRFPLPSMYRALVWKALLGILPPH  
 HDTHSQVMAYRKDQYHDILHALTVVRFISDATPQAEVYLRMYQLESGKLPRSPSFLEPEDEVFLAIKA  
 MEEMVEDSVDCYWISRCFVKQLNKNYRDALPQLPKAFEQYLNLEDSRLLSHLKTCSAVSKLPYDLWFQRC  
 FAGCLPESSLQRVWDKVIPQDSSDAIVSKAIDLWHKHCCTPVHSA

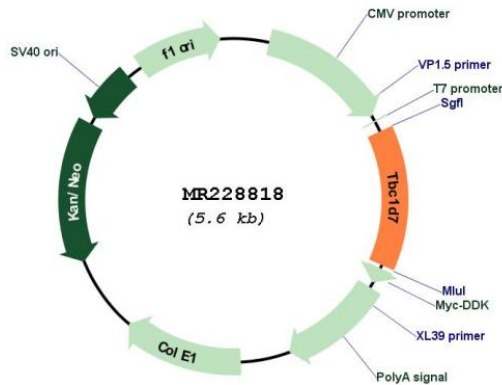
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_001252640  
**ORF Size:** 765 bp

<b>OTI Disclaimer:</b>	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>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001252640.1</a> , <a href="#">NP_001239569.1</a>
<b>RefSeq Size:</b>	1154 bp
<b>RefSeq ORF:</b>	768 bp
<b>Locus ID:</b>	67046
<b>UniProt ID:</b>	<a href="#">Q9D0K0</a>
<b>Cytogenetics:</b>	13 A4
<b>MW:</b>	30.1 kDa
<b>Gene Summary:</b>	Component of the TSC-TBC complex, that contains TBC1D7 in addition to the TSC1-TSC2 complex and consists of the functional complex possessing GTPase-activating protein (GAP) activity toward RHEB in response to alterations in specific cellular growth conditions. The small GTPase RHEB is a direct activator of the protein kinase activity of mTORC1 and the TSC-TBC complex acts as a negative regulator of mTORC1 signaling cascade by acting as a GAP for RHEB. Participates in the proper sensing of growth factors and glucose, but not amino acids, by mTORC1. It is unclear whether TBC1D7 acts as a GTPase-activating protein and additional studies are required to answer this question.[UniProtKB/Swiss-Prot Function]