

## Product datasheet for **MC226607**

### **Tbc1d7 (NM\_001252640) Mouse Untagged Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Tbc1d7 (NM\_001252640) Mouse Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Tbc1d7  
**Synonyms:** 2610009C09Rik  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**Fully Sequenced ORF:** >MC226607 representing NM\_001252640  
**Red**=Cloning site **Blue**=ORF **Orange**=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**GCGATCGCC**

ATGACTGACGACTCTCAGAGGAACCTTCGATCAGTCTACTATGAGAAAGTCGGGTTTCGTGGTGTCAAG  
AAAAGAAATCACTGAAATCCTCCTGAAAGATGACCGTTTGGACATCGAGAAGCTTGCACATTTAGCCA  
GAGGTTCCCTCTCCCATCCATGTATCGCGCGTTGGTATGGAAGGCGCTTCTAGGCATCTTACCTCCGCAC  
CATGACACTCATTCCCAGGTGATGGCCTACCGCAAAGACCAAGTACCATGACATCCTCCATGCCCTGACAG  
TCGTCCGTTTCATCAGTATGCCACGCCACAGGCTGAAGTGTATCTTCGCATGTATCAGCTTGAATCGGG  
GAAGTACCTCGAAGTCCCTCTTTCTCTGGAGCCGGAGGATGAAGTCTTTCTTGCCATCGCCAAGGCC  
ATGGAAGAGATGGTGAAGACAGTGTGGACTGTTACTGGATCAGCCGATGCTTCGTGAAGCAGTTAAATA  
ACAAGTACAGGGACGCTTACCTCAGCTGCCAAGGCTTTCGAGCAGTACTTGAATCTGGAAGACAGTAG  
GCTGCTGAGTACCTGAAGACGTGTTCTGCAGTGTCCAACTGCCTTACGACCTCTGGTTCCAAAGGTGC  
TTCGCGGGATGCCTCCCCGAGTCCAGTTACAGAGGGTCTGGGATAAAGTCATTCCCTCAGGACAGCTCAG  
ATGCCATCGTGAGCAAGGCCATCGACTTGTGGCACAAACTGTGGGACCCCAAGTGCATTTCGGCC**TGA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-MluI  
**ACCN:** NM\_001252640  
**Insert Size:** 768 bp



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<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>OTI Annotation:</b>	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
<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>	<u>NM_001252640.1, NP_001239569.1</u>
<b>RefSeq Size:</b>	1154 bp
<b>RefSeq ORF:</b>	768 bp
<b>Locus ID:</b>	67046
<b>UniProt ID:</b>	<u>Q9D0K0</u>
<b>Cytogenetics:</b>	13 A4
<b>Gene Summary:</b>	<p>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]</p> <p>Transcript Variant: This variant (3) has an alternate splice site in the 3' coding region, compared to variant 1. The reading frame is not affected and the resulting isoform (3) lacks an internal segment, compared to isoform 1.</p>