

## Product datasheet for **RC213082**

### Transglutaminase 7 (TGM7) (NM\_052955) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Transglutaminase 7 (TGM7) (NM_052955) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Transglutaminase 7
Synonyms:	TGMZ
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC213082 representing NM\_052955  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGATCAGGTGGCAACCTTGC GGCTTGTAGTCTGTGACCTGCAGAGCTCCAGGAACAACAAGGAGCACC  
 ACACGCAGGAGATGGGCGTCAAGCGGCTCACTGTGCGCCGCGCCAGCCCTTCTACCTCCGGCTGAGCTT  
 CAGCCGACCTTCCAGTCCCAGAACGACCACATCACCTTTGTGGCTGAGACCGGACCCAAAGCCGTAGAG  
 CTGCTGGGGACCCGAGCCACATTCTTCTCACCCGGTCCAGCCCGGAATGTCTGGAGCGCTTCTGATT  
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 TTTAACCTTGGAGTCCAGAGGACGACGTCTACCTGCCAAGTAAATACTGCTGCAGGAGTATATCATGC  
 GAGATTATGGCTTTGTTACAAGGGTCATGAAAGATTCATCACCTCTGGCCCTGGAACTACGGGCAGTT  
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 GTTCCGCGCACACGTGGATAGGAACTTGACATCGATACGACTATGACCGAAATGCCGAGATGCTGTC  
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 CCACCAGGATACAACGGGTGGCAGGTTCTGGACCCACTCCCCAGCAGACCAGCAGTGGGCTGTTCTGCT  
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 GGGTGCCAGACAGCACCCACCCTCGGGGGCCATCGGACTGGTGGTGCCTTCTGTGCACAGGCCCTGCT  
 GCATGGGGTGGTACCCAGAAGCCCTTCTGGAGGCACACAGTGGGATGAACCTGGACTTTGGGAAGGAG  
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 AGATAGCAAAGGACCTTGGGACTCTGGTGGCCGGACACACCCTCCAAATCAACTGGACCTTACCCGAC  
 CAAAGCTGGACCCCGCAGCTCCAGGTTCTCATCAGCAGCAACGAGGTCAAGGAGATCAAAGGCTACAAG  
 GACATCTTCGTCAGTGTGGCTGGGGTCCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC213082 representing NM\_052955  
 Red=Cloning site Green=Tags(s)

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MDQVATLRLESVDLQSSRNKEHHTQEMGVKRLTVRRGQPFYLRLSFSRPFQSQNDHITFVAETGPKPSE
LLGTRATFFLTRVQPGNVWSASDFTIDSNSLQVSLFTPANAVIGHYTLKIEISQGGHVSITYPLGTFILL
FNPWSPEDDVYLPSEILLQEYIMRDYGFVYKGERFITSWPWNYGQFEEDIIDICFEILNKSLYHLKNPA
KDCSQRNDVVYVCRVVSAMINSNDDNGVLQGNWGEDYSKGVSPLEWKGSVAILQQWSARGGQPVKYGQCW
VFASVMCTVMRCLGVPTRVVSNFRSAHNVDRNLTIDTYDRNAEMLSTQKRDKIWNFHVWNECWMIKDL
PPGYNGWQVLDPTPQQTSSGLFCCGPASVKAIREGDVHLAYDTPFVYAEVNADEVIWLLGDGQAQEILAH
NTSSIGKEISTKMVGSDQRQSITSSYKYPEGSPEERAVFMKASRMLGPPQRASLPFLDLLESGLRDQPA
QLQLHLARIPWQDLQLLLRIQRPDSTHPRGPIGLVVRFCQALLHGGGTQKPFWRHTVRMNLDFGKE
TQWPLLLPYSNYRNKLTDEKLIRVSGIAEVEETGRSMLVLKDICLEPHLSIEVSERAEVGKALRVHVTL
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DIFVTVAGAP
  
```

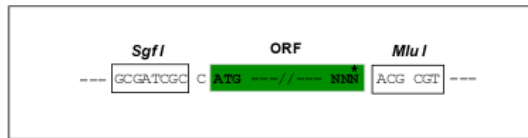
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8024\\_d10.zip](https://cdn.origene.com/chromatograms/mk8024_d10.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



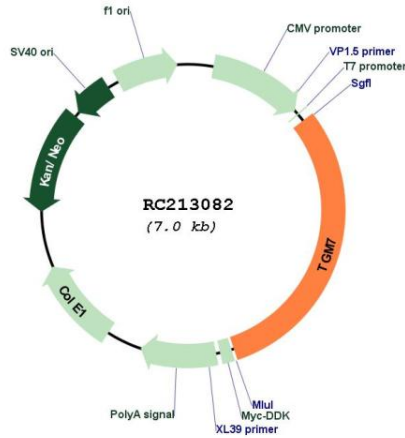
\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_052955

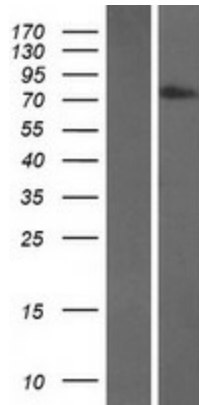
**ORF Size:** 2130 bp

<b>OTI Disclaimer:</b>	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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></p>
<b>OTI Annotation:</b>	<p>This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.</p>
<b>Components:</b>	<p>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).</p>
<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_052955.3</a>
<b>RefSeq Size:</b>	2312 bp
<b>RefSeq ORF:</b>	2133 bp
<b>Locus ID:</b>	116179
<b>UniProt ID:</b>	<a href="#">Q96PF1</a>
<b>Cytogenetics:</b>	15q15.2-q15.3
<b>Protein Families:</b>	Druggable Genome
<b>MW:</b>	79.8 kDa
<b>Gene Summary:</b>	<p>Transglutaminases (TGM; EC 2.3.2.13) are a family of structurally and functionally related enzymes that stabilize protein assemblies through the formation of gamma-glutamyl-epsilon lysine crosslinks. For additional background information on transglutaminases, see TGM1 (MIM 190195).[supplied by OMIM, Jul 2002]</p>

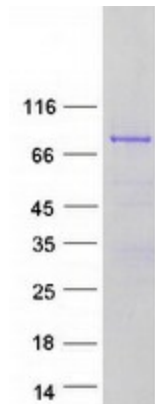
Product images:



Circular map for RC213082



Western blot validation of overexpression lysate (Cat# [LY409318]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC213082 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TGM7 protein (Cat# [TP313082]). The protein was produced from HEK293T cells transfected with TGM7 cDNA clone (Cat# RC213082) using MegaTran 2.0 (Cat# [TT210002]).