

Product datasheet for **RC215126**

Transglutaminase 5 (TGM5) (NM_201631) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Transglutaminase 5 (TGM5) (NM_201631) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Transglutaminase 5
Synonyms:	PSS2; TGASE5; TGASEX; TGM6; TGMX; TGX
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>RC215126 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCCGCATCGCC

ATGGCCAAAGGGCTAGAAGTGGCCCTCACAGACCTCCAGAGCTCCAGAAATAATGTGCGGCACCACACGG
AGGAGATCACTGTGGACCACCTGCTTGTTCGCCGGGGCCAGGCCTTCAACCTCACCTGACTTCAGGAA
CCGGAGCTTCCAGCCAGGCCTGGACAACATCATCTTCGTGGTTGAAACTGGACCGCTGCCAGACCTGGCC
TTGGGGACTCGGGCTGTGTTTCAGCCTGGCAGCCATCACAGCCCCAGCCCTGGATTGCCTGGTGGAGA
CCAATGGGGCCACCTCCACAGAGGTGAGCTTGTGCGCTCTCCAAAGGCGCCGTGGGTCCGTACCTCTT
GAAAATCCACATCGACTCCTCCAGGGTCTGTGACGGCCTACCAGCTAGGGGAGTTCATCTGCTTTTC
AATCCCTGGTGCCAGAGGATGTGTCTACTTGGACAGTGAACCCAGAGGCAGGAGTATGTCATGAATG
ATTATGGCTTCATCTACCAAGGCAGCAAGAACTGGATCCGCCATGTCCCTGGAAGTATGGACAGTTTGA
AGACAAAATCATAGACATCTGCCTGAAGCTGCTAGACAAGAGCCTGCACTTCCAGACTGACCCAGCCACA
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CAGCGTGGCCATCCTGAAGCAGTGGAAACCCACAGGCTGCCAGCCGTGCGCTACGGGCAATGCTGGGTCT
TTTGCTGCCGTATGTGCACAGTGTGAGGTGTCTGGGGATCCCTACCCGTGTGATCACCAACTTCGACT
CTGGCCACGATACAGATGGAAACCTGATCATAGATGAGTACTATGACAACACAGGCAGGATTTTGGGGAA
TAAGAAGAAGGATACTATCTGGAACCTCCATGTCTGGAATGAGTGTGGATGGCCCGGAAGGATCTGCC
CCTGCATATGGAGGCTGGCAGGTGCTGGACGCCACCTCAGGAGATGAGCAACGGCGTCTACTGCTGTG
GCCCTGCCTCTGTGAGAGCCATCAAAGAAGGAGAAGTGGACCTGAACTATGACACGCCCTTTGTGTTTTTC
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CCTCGGAGCCTGCATACACCTTCCCTTCGACCCAGTGTGTGGTGAAGTCTCCCTGAAATTCAGCTGC
TCGACCCGCCAACATGGGCCAGGATATATGCTTTGCTGCTGGCCCTCAACATGCTCTCCAGTTCAA
GGACCTCAAAGTGAACCTGAGTGCCAGTCTCTGCTGCACGATGGCAGCCCCCTGTCCCATTCCTGGCAG
GACACAGCGTTTATCACACTCTCTCTAAAGAAGCAAAGACCTACCCCTGCAAAATCTCCTATTCAGT
ACAGCCAGTACCTGTCAACAGACAAGCTGATCCGCATCAGTGCCCTGGGTGAAGAGAAAAGCAGTCTTGA
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GTTGTGAACCAGCCACTCTCCATACAGGTGATATTTTCAAACCCCTCTCGGAGCAGGTTGAGGACTGTG
TGCTGACTGTGGAAGGAAGTGGCCCTCTTCAAGAAACAGCAGAAAGTCTTCTTGGAGTCTCAAACCCCA
ACACCAAGCAAGCATCATTCTGGAGACCGTCCCCTTCAAGAGTGGACAAAGGCAGATCCAAGCTAATATG
AGAAGCAACAAGTTAAGGACATTAAGGGTTACAGGAATGTTTATGTAGACTTTGCATTA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC215126 protein sequence
 Red=Cloning site Green=Tags(s)

MAQGLEVALTDLQSSRNNVRHHTTEEITVDHLLVRRGQAFNLTLYFRNRSFQPLDNIIFVVETGPLPDLA
 LGTRAVFSLARHHSPSPWIAWLETNGATSTEVSLCAPPKAAVGRYLLKIHIDSFQGSVTAYQLGEFILLF
 NPWCPEDAVYLDSEPQRQEQYVMNDYGF IYQGSKNWIRPCPWNYGQFEDKI IDICLKLKSLHFQTD PAT
 DCALRGSPVYVSRVVCAMINSNDDNGVLNGNWSENYTDGANPAEW TGSA I LKQWNATGCPVRYGQCWV
 FAAVMCTVMRCLGIPTRVITNFDSGHDTDGNL I I DEYDNTGRILGNKKKDTIWNFHVWNECW MARKDLP
 PAYGGWQVLDATPQEMSNVYCCGPASVRAIKEGEVDLNYDTPFVFSMVNADCM SWLVQGGKEQKLHQDT
 SSVGNFISTKSIQSDERDDITENYKYEEGSLQERQVFLKALQKLKARSFHGSQRGAELQPSRPTSLSQDS
 PRSLHTPSLRPSDVVQVSLKFKLLDPPNMGQD ICFVLLALNMSSQFKDLKVNLSAQSLLDHGSPLSPFWQ
 DTAFITLSPKEAKTYPCKISYSQYSQYLSTDKLIRISALGEEKSSPEKILVNKIIITLSYPSITINVLGAA
 VVNQPLSIQVIFSNPLSEQVEDCVLTVEGSGLFKKQKVFLGVLKPQHQASIIILETVPFKSGQRQIQANM
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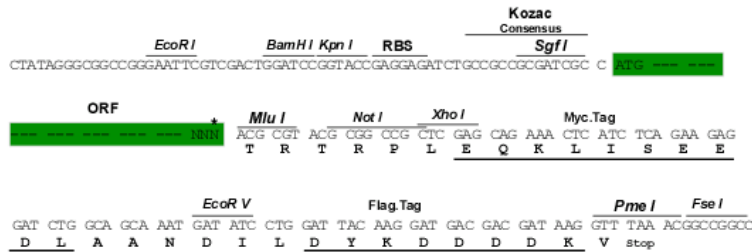
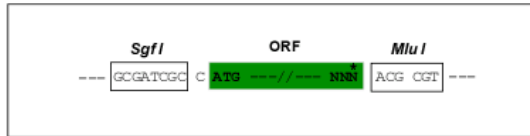
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6443_f06.zip

Restriction Sites: Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



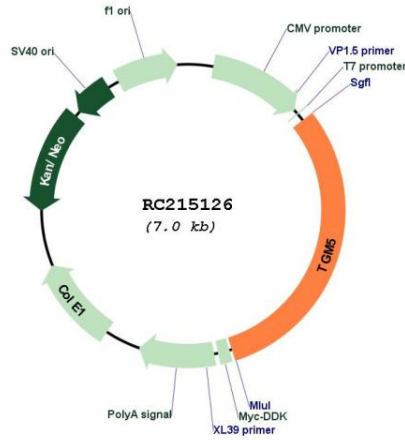
* The last codon before the Stop codon of the ORF

ACCN: NM_201631

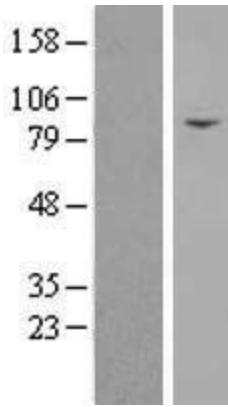
ORF Size: 2160 bp

OTI Disclaimer:	<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 custsupport@origene.com 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. More info</p>
OTI Annotation:	<p>This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.</p>
Components:	<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>
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_201631.4
RefSeq Size:	2777 bp
RefSeq ORF:	2163 bp
Locus ID:	9333
UniProt ID:	O43548
Cytogenetics:	15q15.2
Protein Families:	Druggable Genome
MW:	80.8 kDa
Gene Summary:	<p>This gene encodes a member of the transglutaminase family. The encoded protein catalyzes formation of protein cross-links between glutamine and lysine residues, often resulting in stabilization of protein assemblies. This reaction is calcium dependent. Mutations in this gene have been associated with acral peeling skin syndrome. [provided by RefSeq, Oct 2009]</p>

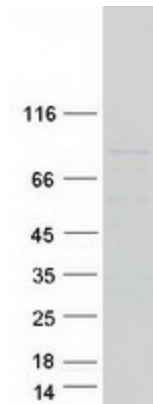
Product images:



Circular map for RC215126



Western blot validation of overexpression lysate (Cat# [LY404492]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC215126 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TGM5 protein (Cat# [TP315126]). The protein was produced from HEK293T cells transfected with TGM5 cDNA clone (Cat# RC215126) using MegaTran 2.0 (Cat# [TT210002]).