

## Product datasheet for **RC218861**

### Transglutaminase 5 (TGM5) (NM\_004245) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Transglutaminase 5 (TGM5) (NM_004245) 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:

>RC218861 representing NM\_004245  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGCATCGCC**

ATGGCCAAAGGGCTAGAAGTGGCCCTCACAGACCTCCAGAGCTCCAGAAATAATGTGCGGCACCACCGG  
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CCGGAGCTTCCAGCCAGGCCTGGACAACATCATCTTCGTGGTTGAAACTGAGGATGCTGTCTACTTGGAC  
AGTGAACCCAGAGGCAGGAGTATGTCATGAATGATTATGGCTTCATCTACCAAGGCAGCAAGAAGTGGAA  
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ACACAGACGGCGCAACCCTGCGGAGTGGACGGGCAGCGTGGCCATCCTGAAGCAGTGGAAACCCACAGG  
CTGCCAGCCCGTGCCTACGGGCAATGCTGGGTCTTTGCTGCCGTCATGTGCACAGTGTGAGGTGTCTG  
GGGATCCCTACCGTGTGATCACCAACTTCGACTCTGGCCACGATACAGATGGAAACCTGATCATAGATG  
AGTATTATGACAACACAGGCAGGATTTTGGGGAATAAGAAGAAGGATACTATCTGGAACCTCCATGTCTG  
GAATGAGTGTGGATGGCCCGGAAGGATCTGCCCCCTGCATATGGAGGCTGGCAGGTGTGGACGCCACA  
CCTCAGGAGATGAGCAACGGCGTCTACTGCTGTGGCCCTGCCTCTGTGAGAGCCATCAAAGAAGGAGAAG  
TGGACCTGAACATGACACGCCCTTTGTGTTTTCGATGGTGAATGCTGACTGCATGTCTGGCTCGTCCA  
GGGAGGGAAGGAGCAGAAGCTTACCAGGACACAGATTCTGTTGGCAATTTATCAGCACAAAGAGCATC  
CAGAGTGACGAGCGGGATGACATCACAGAGAACAAGTATGAAGAAGGATCCCTCCAGGAGAGGCAGG  
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TCAGTGCCTGGGTGAAGAGAAAAGCAGTCTGAGAAAATCCTGGTGAACAAGATCATCACCTTATCTTA  
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TCAAACCCCTCTCGGAGCAGGTTGAGGACTGTGTGCTGACTGTGGAAGGAAGTGGCCTCTCAAGAAAC  
AGCAGAAAAGTCTTCTTGAGTCCCTCAAACCCCAACACCAAGCAAGCATATTCTGGAGACCGTCCCTT  
CAAGAGTGGACAAAGGCAGATCCAAGCTAATATGAGAAGCAACAAGTTTAAAGACATTAAGGTTACAGG  
AATGTTTTATGTAGACTTTGCATTA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC218861 representing NM\_004245  
Red=Cloning site Green=Tags(s)

```
MAQGLEVALTDLQSSRNNVRHHTTEEITVDHLLVRRGQAFNLTLYFRNRSFQPGLDNIIFVVEDAVYLD
SEPQRQEYVMNDYGF IYQGSKNWIRPCWNYGQFEDKI IDICLKLKSLHFQTDPCALRGSPVYVS
RVVCAMINSNDDNGVLNGNWSENYTDGANPAEWGTSVA I LKQWNATGCQP VRYGQCWVFAAVMCTVMRCL
GIPTRVITNFDSGHDTDG NLI IDEYYDNTGRILGNKKKDTIWNFHVWNECW MARKDLPAYGGWQVLDAT
PQEMSNGYCCGPASVRAIKEGEVDLNYDTPFVFSMVNADCMSWL VQGGKEQKLHQDTSSVGNFISTKSI
QS DERDDITENYKYEEGSLQERQVFLKALQKLKARSFHGSQRGAELQPSRPTSLSQDSPRSLHTPSLRPS
D VVQVSLKFKLLDPPNMGQD ICFVLLALNMSSQFKDLKVNLSAQSL LHDSPLSPFWQDTAFITLSPKEA
K TYPCKISYSQYSQYLSTDKLIRISALGEEKSSPEKILVNKIITLSYPSITINVLGAAVNVQPLSIQVIF
S NPLSEQVEDCVLTVEGSGLFKKQKQVFLGVLKPQHQASIILETVPFKSGQRQIQANMRSNKFKDIKGYR
N VYVDFAL
```

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8070\\_h02.zip](https://cdn.origene.com/chromatograms/mk8070_h02.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_004245

**ORF Size:** 1914 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:**

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\\_004245.4](#)

**RefSeq Size:** 1958 bp

**RefSeq ORF:** 1917 bp

**Locus ID:** 9333

**UniProt ID:** [O43548](#)

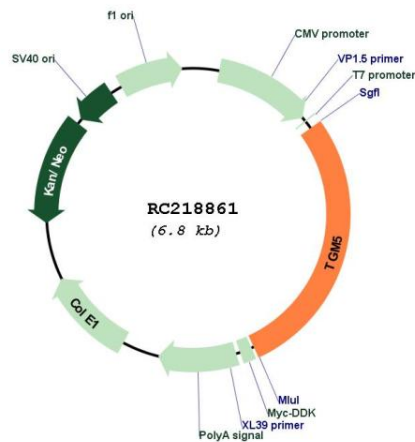
**Cytogenetics:** 15q15.2

**Protein Families:** Druggable Genome

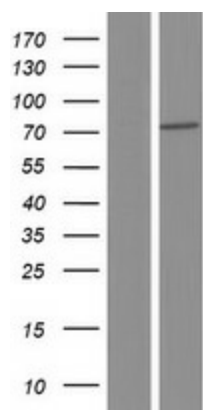
**MW:** 71.7 kDa

**Gene Summary:** 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]

## Product images:



Circular map for RC218861



Western blot validation of overexpression lysate (Cat# [LY418116]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218861 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).