

Product datasheet for **RG218861**

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:	TurboGFP
Symbol:	Transglutaminase 5
Synonyms:	PSS2; TGASE5; TGASEX; TGM6; TGMX; TGX
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG218861 representing NM_004245
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCCAAAGGGCTAGAAGTGGCCCTCACAGACCTCCAGAGCTCCAGAAATAATGTGCGGCACCACCGG
 AGGAGATCACTGTGGACCACCTGCTTGTTCGCCGGGGCCAGGCCTCAACCTCACCTGACTTCAGGAA
 CCGGAGCTTCCAGCCAGGCCTGGACAACATCATCTTCGTGGTTGAAACTGAGGATGCTGTCTACTTGGAC
 AGTGAACCCAGAGGCAGGAGTATGTCATGAATGATTATGGCTTCATCTACCAAGGCAGCAAGAAGTGGAA
 TCCGCCCATGTCCCTGGAACCTATGGACAGTTTGAAGACAAAATCATAGACATCTGCCTGAAGCTGCTAGA
 CAAGAGCCTGCACCTCCAGACTGACCCAGCCACAGACTGTGCTCTGCGGGGAAGCCCGTCTACGTCAGC
 AGAGTGGTGTGTCCATGATCAACAGCAATGATGATAATGGGGTCTCAATGGAACTGGAGTGAGAATT
 ACACAGACGGCGCAACCCTGCGGAGTGGACGGGCAGCGTGGCCATCCTGAAGCAGTGAACGCCACAGG
 CTGCCAGCCCGTGCCTACGGGCAATGCTGGGTCTTTGCTGCCGTATGTGCACAGTGTAGAGTGTCTG
 GGGATCCCTACCGTGTGATCACCAACTTCGACTCTGGCCACGATACAGATGGAAACCTGATCATAGATG
 AGTATTATGACAACACAGGCAGGATTTTGGGGAATAAGAAGAAGGATACTATCTGGAACCTCCATGTCTG
 GAATGAGTGTGGATGGCCCGGAAGGATCTGCCCCCTGCATATGGAGGCTGGCAGGTGCTGGACGCCACA
 CCTCAGGAGATGAGCAACGGCGTCTACTGCTGTGGCCCTGCCTCTGTCAGAGCCATCAAAGAAGGAGAAG
 TGGACCTGAACATGACACGCCCTTTGTGTTTTCGATGGTGAATGCTGACTGCATGTCTGGCTCGTCCA
 GGGAGGGAAGGAGCAGAAGCTTACCAGGACACGAGTTCTGTTGGCAATTTATCAGCACAAAGAGCATC
 CAGAGTGACGAGCGGGATGACATCACAGAGAACAAGTATGAAGAAGGATCCCTCCAGGAGAGGCAGG
 TGTTTCTGAAGGCTCTGCAGAAGCTGAAGGCTAGAAGTCCATGGCTCCCAAAGAGGAGCAGAGTTGCA
 ACCTTCCAGGCCACATCACTGAGCCAGGACAGCCCTCGGAGCCTGCATACACCTTCCCTTCGACCCAGT
 GATGTGGTGAAGTCTCCCTGAAATTCAAGCTGCTCGACCCGCCAACATGGGCCAGGATATATGCTTTG
 TCCTGCTGGCCCTCAACATGTCTCTCCAGTTCAAGGACCTCAAAGTGAACCTGAGTGCCAGTCTCTGCT
 GCACGATGGCAGCCCTGTCCCATCTGGCAGGACACAGCGTTCATCACACTCTCTCTAAAGAAGCA
 AAGACCTACCCCTGCAAATCTCTATTCCAGTACAGCCAGTACCTGTCAACAGACAAGCTGATCCGCA
 TCAGTGCCTGGTGAAGAGAAAAGCAGTCTGAGAAAATCCTGGTGAACAAGATCATCACCTTATCTTA
 TCCAAGCATCACGATTAATGTTCTAGGAGCAGCCGTTGTGAACCAGCCACTCTCCATACAGGTGATTTT
 TCAAACCCCTCTCGGAGCAGGTTGAGGACTGTGTGCTGACTGTGAAGGAAGTGGCCTCTCAAGAAAC
 AGCAGAAAAGTCTTCTTGGAGTCTCAAACCCCAACCAAGCAAGCATATTCTGGAGACCGTCCCTT
 CAAGAGTGGCAAAGGCAGATCCAAGCTAATATGAGAAGCAACAAGTTTAAAGACATTAAGGTTACAGG
 AATGTTTATGTAGACTTTGCATTA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG218861 representing NM_004245
 Red=Cloning site Green=Tags(s)

MAQGLEVALTDLQSSRNVRHHTEEITVDHLLVRRGQAFNLTLYFRNRSFQPLDNIIFVVETEDAVYLD
 SEPQRQEVYVNDYGFYIYQGSKNWIRPCWNYGQFEDKIIDICLKLKSLHFQTDPCALRGSPVYVS
 RYVVCAMINSNDDNGVLNGNWSENYTDGANPAEWTGSAVILKQWNATGCQPVRYGQCWVFAAVMCTVMRCL
 GIPTRVITNFDSGHDTDGNLIIDEYYDNTGRILGNKKKDTIWNFHVWNECW MARKDLPPAYGGWQVLDAT
 PQEMSNVYCCGPASVRAIKEGEVDLNYDTPFVFSMVNADCMSWLQGGKEQKLHQDTSVGNFISTKSI
 QSDERDDITENYKYEESLQERQVFLKALQKLKARSFHGSQRGAELQPSRPTLSQDSPRSLHTPSLRPS
 DVVQVSLKFKLLDPPNMQDICFVLLALNMSSQFKDLKVNLSAQSLLDHGSPLSPFWQDTAFITLSPKEA
 KTYPCIKISYSQYSQYLSTDKLIRISALGEEKSSPEKILVNKIITLSYPSITINVLGAAVVNQPLSIQVIF
 SNPLSEQVEDCVLTVESGSLFKKQKQVFLGVLKPQHQASIIILETVPFKSGQRQIQANMRSNFKFKDIKGYR
 NVYVDFAL

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



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

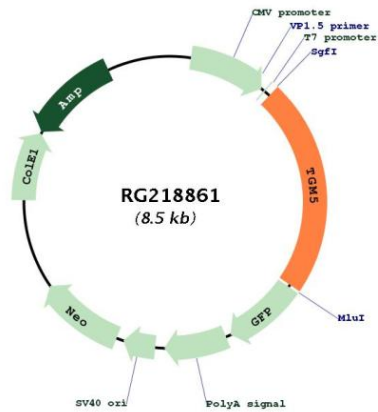
UniProt ID: [O43548](#)

Cytogenetics: 15q15.2

Protein Families: Druggable Genome

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 RG218861