

Product datasheet for **RG217353**

Transglutaminase 2 (TGM2) (NM_004613) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Transglutaminase 2 (TGM2) (NM_004613) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	TGM2
Synonyms:	G(h); hTG2; TG(C); TGC; tTG
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide
Sequence:

>RG217353 representing NM_004613
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCCGAGGAGCTGGTCTTAGAGAGGTGTGATCTGGAGCTGGAGACCAATGGCCGAGACCACCACACGG
CCGACCTGTGCCGGGAGAAGCTGGTGGTGCACGGGGCCAGCCCTTCTGGCTGACCCTGCACTTTGAGGG
CCGCAACTACGAGGCCAGTGTAGACAGTCTCACCTTCAGTGTCTGTGACCGGCCAGCCCTAGCCAGGAG
GCCGGGACCAAGGCCCGTTTTCCACTAAGAGATGCTGTGGAGGAGGGTGACTGGACAGCCACCGTGGTGG
ACCAGCAAGACTGCACCCTCTCGCTGCAGCTCACCACCCCGGCCAACGCCCCATCGGCCTGTATCGCCT
CAGCCTGGAGGCCTCCACTGGCTACCAGGGATCCAGCTTTGTGCTGGGCCACTTCATTTTGTCTTCAAC
GCCTGGTGCCAGCGGATGCTGTGTACCTGGACTCGGAAGAGGAGCGGCAGGAGTATGTCCTCACCAGC
AGGGCTTTATCTACCAGGGCTCGGCCAAGTTCATCAAGAACATACCTTGAATTTTGGGCAGTTGAAGA
TGGGATCTAGACATCTGCCTGATCCTTCTAGATGTCAACCCCAAGTTCCTGAAGAACCGCGGCCGTGAC
TGCTCCCGCCGACGACGCCCGTCTACGTGGGCCGGGTGGTGAAGTGGCATGGTCAACTGCAACGATGACC
AGGGTGTGCTGCTGGGACGCTGGGACAACAACACGCGGGACGGCGTCAGCCCCATGTCCTGGATCGGCAG
CGTGGACATCCTGCGGCCTGGAAGAACCACGGCTGCCAGCGCGTCAAGTATGGCCAGTGTGGTCTTC
GCCGCCGTGGCCTGCACAGTGTGAGGTGCCTGGGCATCCCTACCCGCGCTGTGACCAACTACAACCTCGG
CCCATGACCAGAACAGCAACCTTCTCATCGAGTACTTCCGCAATGAGTTTGGGGAGATCCAGGGTGACAA
GAGCGAGATGATCTGGAACCTCCACTGCTGGGTGGAGTGTGGATGACCAGGCCGACCTGCAGCCGGGG
TACGAGGGCTGGCAGGCCCTGGACCAACGCCCCAGGAGAAGAGCGAAGGGACGTAAGTGTGGCCAG
TTCCAGTTCGTGCCATCAAGGAGGGCGACCTGAGCACCAGTACGATGCGCCCTTTGTCTTTGCGGAGGT
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ATCGTTGGGCTGAAGATCAGCACTAAGAGCGTGGGCCGAGACGAGCGGGAGGATATCACCCACACCTACA
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TCAGCTACAATGGGATCTTGGGGCCGAGTGTGGCACCAGTACCTGCTCAACCTCAACCTGGAGCCTTT
CTCTGAGAAGAGCGTTCCTCTTTGCATCCTCTATGAGAAATACCGTACTGCCTACGGAGTCCAACCTC
ATCAAGGTGCGGGCCCTCCTCGTGGAGCCAGTTATCAACAGCTACCTGCTGGCTGAGAGGGACCTTACC
TGGAGAATCCAGAAATCAAGATCCGGATCCTTGGGGAGCCCAAGCAGAAACGCAAGCTGGTGGCTGAGGT
GTCCTGCAGAACCCGCTCCCTGTGGCCCTGGAAGGCTGCACCTTCACTGTGGAGGGGGCCGCCTGACT
GAGGAGCAGAAGACGGTGGAGATCCCAGACCCCGTGGAGGCAGGGGAGGAAGTTAAGGTGAGAATGGACC
TGCTGCCGCTCCACATGGGCCTCCACAAGCTGGTGGTGAACCTCGAGAGCGACAAGCTGAAGGCTGTGAA
GGGCTCCGGAATGTCATCATTGGCCCCGCC

ACGCGTACGCGGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG217353 representing NM_004613
 Red=Cloning site Green=Tags(s)

MAEELVLERCDLELETNGRDHHTADLCREKLVVRRGQPFWLTLHFEGRNYEASVDSLTFVVTGPAPSQE
 AGTKARFPLRDAVEEGDWTATVVDQDCTL SLQLTTPANAPIGL YRLSLEASTGYQGSSFLGHFILLFN
 AWC PADAVYLDSEERQEYVL TQQGF IYQGS AKF IKNI PWNFGQFEDGILDICL ILLD VNP KFLKNAGRD
 CSRSSPVYVGRVVS GMVNCNDDQGVLLGRWDNNYGDGVSPMSWIGSVDILRRWKNHGCCRQV KYGQCWVF
 AAVACTVLRCLGIPTRVVTNYS AHDQNSNLLIEYFRNEFGEIQGDKSEMIWNFHCWVESWMTRPDLQPG
 YEGWQALDPTPQEKSEGT YCCGPVPVRAIKEGDLSTKYDAPFVFAEVNADVVDWIQQDDG SVHKSINRSL
 IVGLKISTKSVGRDEREDITHYKYPEGSSEEREAFTRANHLNKLAEKEETGMAMRIRV GQSMNMGSDFD
 VFAHITNNTAEEYVCRLLL CARTVSYNGILGPECGTKYLLNLNLEPFSEKSVPLCILEYKYRDLTESNL
 IKVRALLVEPVINSYLLAERDLYLENPEIKIRILGEPKQKRKLVAEVS LQNPLPVALEGCTFTVEGAGLT
 EEQKTVEIPDPVEAGEEVKVRMDLLPLHMGLHKL VVNFESDKLKAVKGFNRNVIIGPA

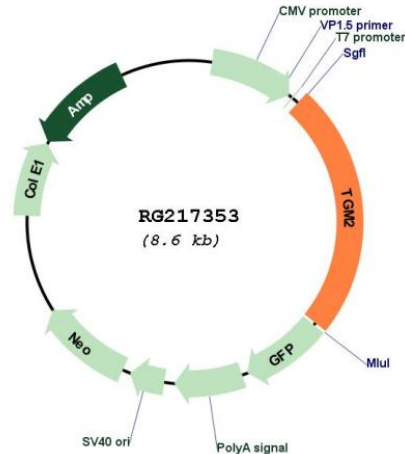
TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:


ACCN: NM_004613

ORF Size: 2061 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_004613.4](#)

RefSeq Size: 3937 bp

RefSeq ORF:	2064 bp
Locus ID:	7052
UniProt ID:	P21980
Cytogenetics:	20q11.23
Domains:	Transglutamin_C, TGc
Protein Families:	Druggable Genome
Protein Pathways:	Huntington's disease
Gene Summary:	<p>Transglutaminases are enzymes that catalyze the crosslinking of proteins by epsilon-gamma glutamyl lysine isopeptide bonds. While the primary structure of transglutaminases is not conserved, they all have the same amino acid sequence at their active sites and their activity is calcium-dependent. The protein encoded by this gene acts as a monomer, is induced by retinoic acid, and appears to be involved in apoptosis. Finally, the encoded protein is the autoantigen implicated in celiac disease. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]</p>