

Product datasheet for **SC117263**

Transglutaminase 2 (TGM2) (NM_004613) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Transglutaminase 2 (TGM2) (NM_004613) Human Untagged Clone
Tag:	Tag Free
Symbol:	Transglutaminase 2
Synonyms:	G(h); hTG2; TG(C); TGC; tTG
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

Fully Sequenced ORF: >OriGene ORF within SC117263 sequence for NM_004613 edited (data generated by NextGen Sequencing)

```

ATGGCCGAGGAGCTGGTCTTAGAGAGGTGTGATCTGGAGCTGGAGACCAATGGCCGAGAC
CACCACACGGCCGACCTGTGCCGGGAGAAGCTGGTGGTGCACGGGGCCAGCCCTTCTGG
CTGACCCTGCACTTTGAGGGCCCAACTACGAGGCCAGTGTAGACAGTCTCACCTCAGT
GTCGTGACCGGCCAGCCCTAGCCAGGAGGCCGGGACCAAGGCCGTTTTCCACTAAGA
GATGCTGTGGAGAGGGTGACTGGACAGCCACCGTGGTGGACCAGCAAGACTGCACCCTC
TCGCTGCAGCTCACCAACCCGGCCAACGCCCCATCGGCCTGTATCGCCTCAGCCTGGAG
GCCTCCACTGGCTACCAGGGATCCAGCTTTGTGCTGGGCCACTTCATTTTCTCTTCAAC
GCCTGGTGCCAGCGGATGCTGTGTACCTGGACTCGGAAGAGGAGCGGCAGGAGTATGTC
CTCACCCAGCAGGGCTTTATCTACCAGGGCTCGGCCAAGTTCATCAAGAACATACCTTGG
AATTTTGGGCAGTTTGAAGATGGGATCCTAGACATCTGCCTGATCCTTCTAGATGTCAAC
CCCAAGTTCCTGAAGAACGCCGGCCGTGACTGCTCCCGCCGACGAGCCCGTCTACGTG
GGCCGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGG
TGGGACAACAACACGGGGACGGCGTCAGCCCCATGCTCCTGGATCGGCAGCGTGGACATC
CTGCGGCCCTGGAAGAACCACGGCTGCCAGCGCTCAAGTATGGCCAGTGCCTGGGCTTTC
GCCGCCGTGGCCTGCACAGTGTGAGGTGCCTGGGCATCCCTACCCGCGTCGTGACCAAC
TACAACCTCGGCCATGACCAGAACAGCAACCTTCTCATCGAGTACTTCCGCAATGAGTTT
GGGAGATCCAGGGTGACAAGAGCGAGATGATCTGGAACCTCCACTGCTGGTGGGAGTCG
TGGATGACCAGGCCGACCTGCACGCCGGGTACGAGGGCTGGCAGGCCCTGGACCAACG
CCCCAGGAGAAGAGCGAAGGGACGTACTGCTGTGGCCAGTTCAGTTCGTGCCATCAAG
GAGGGCGACCTGAGCACAAGTACGATGCGCCCTTTGTCTTTGCGGAGGTCAATGCCGAC
GTGGTAGACTGGATCCAGCAGGACGATGGGTCTGTGCACAAATCCATCAACCGTTCCTG
ATCGTTGGGCTGAAGATCAGCACTAAGAGCGTGGGCCGAGACGAGCGGGAGGATATCACC
CACACCTACAAATACCCAGAGGGTCTCAGAGGAGAGGGAGGCCCTTACAAGGGCGAAC
CACCTGAACAAACTGGCCGAGAAGGAGGAGACAGGGATGGCCATGCGGATCCGTGTGGC
CAGAGCATGAACATGGGCAGTGACTTTGACGTCTTTGCCACATCACCAACAACCCGCT
GAGGAGTACGTCTGCCGCTCCTGCTCTGTGCCCGCACCGTCAGCTACAATGGGATCTTG
GGGCCGAGTGTGGCACCAAGTACCTGCTCAACCTCAACCTGGAGCCTTCTCTGAGAAG
AGCCTTCTCTTTGCATCCTCTATGAGAAATACCGTGACTGCCTTACGGAGTCCAACCTC
ATCAAGGTGCGGGCCCTCCTCGTGGAGCCAGTTATCAACAGCTACCTGCTGGCTGAGAGG
GACCTCTACCTGGAGAATCCAGAAATCAAGATCCGGATCCTTGGGGAGCCCAAGCAGAAA
CGCAAGCTGGTGGCTGAGGTGTCCCTGCAGAACCCGCTCCTGTGGCCCTGGAAGGCTGC
ACCTTCACTGTGGAGGGGGCCGGCTGACTGAGGAGCAGAAGACGGTGGAGATCCCAGAC
CCCGTGGAGGCAGGGGAGGAAGTTAAGGTGAGAATGGACCTGCTGCCGCTCCACATGGGC
CTCCACAAGCTGGTGGTGAACCTCGAGAGCGACAAGCTGAAGGCTGTGAAGGGCTTCCGG
AATGTCATCATTGGCCCCGCCTAA

```

Clone variation with respect to NM_004613.2

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_004613 unedited
 NCCGTTTCAGATTTTGTAAACGACTCACTATTAGGGCGGCCGGAATTCGCACCAGGCCA
 GTGGTCGCACTTGGAGGGTCTCGCCGCCAGTGGAAAGGAGCCACCGCCCCCGCCGACATG
 GCCGAGGAGCTGGTCTTAGAGAGGTGTGATCTGGAGCTGGAGACCAATGGCCGAGACCAC
 CACACGGCCGACCTGTGCCGGGAGAAGCTGGTGGTGGACGGGGCCAGCCCTTCTGGCTG
 ACCCTGCACCTTTGAGGGCCGCAACTACGAGGCCAGTGTAGACAGTCTCACCTTCAGTGTC
 GTGACCGGCCACCCCTAGCCAGGAGGCCGGGACCAAGGCCGTTTTCCACTAAGAGAT
 GCTGTGGAGGAGGTGACTGGACAGCCACCGTGGTGGACCAGCAAGACTGCACCCTCTCG
 CTGCAGCTCACCACCCGGCCAACGCCCCCATCGGCTGTATCGCCTCAGCCTGGAGGCC
 TCCACTGGCTACCAGGGATCCAGCTTTGTGCTGGGCCACTTCATTTTGTCTTCAACGCC
 TGGTGCCAGCGGATGCTGTGTACTGGACTCGGAAGAGGAGCGGCAGGAGTATGTCCTC
 ACCCAGCAGGGCTTTATCTACCAGGGCTCGGCCAAGTTCATCAAGAACATACCTTGAAT
 TNTGGCAGTTTGAAGATGGGATCCTAGACATCTGCCTGATCCTTCTANGATGTCAACCC
 CAGTTCCTGAAGAACGCCGGCCGTGACTGCTCCCGCCGACGAGCCCGTCTACGTGGC
 CGGTGGTGAGTGGCATGGTCAACTGNACAGATGACCANGGTGTGCTGCTGGGACGCTGG
 GACAACACTACGGGGACGGCGTACGCCATGTNCTGGATCGGCAGCGTGGACATCCTGCN
 GCGCTGGAAGAACACNGCTGCCANCGCGTCAAGTATGGCCAGTGTGGGNTCTCNNNCGN
 CGTGCT

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_004613 unedited
 CCATAAACACCTCTTTTNNGGAGAGGGAGCCATCAGAGTCGAGTTTTTTTTTTTTTTTC
 TTTTATTTCCGAGTGTGAAAAATAAACTCCCTTTAAATCAGNNGNANGNACCATTGCGGG
 TCAAAAGCACATCCCTTTGAAAGNGTGAACCCAAGGCTTTATATAAAACAGTAAAGA
 AATAGAGCTCTATGTATAGAGAAAATATACATGTCTGAAAAATGGGTGACTCTTTCCTGA
 GCAAAAGAAGAGATCAAAATGCAACAGAATGATTCTCTCAAGACCATCCCTGGGAATT
 GGGAGGCCCTGGAGGCTGTGATCTACCTAAAACAGAAAATCCCCAAATCTTTCAGCCT
 AAGGGAAGCACTGTCAAGTAAAAAGAGCAGGAGATAAAGTTCAAAGCATGACAACATG
 GGATCCACAAGCTACCTCCGGAGCAGGGGCTATGTTTGAAGGCCTAATACTTGATAGGA
 ATGGAAAGATGGAAGAGTTAATCTTGTAGGATAAGCGACCAGCACTGATAATATAAAGAA
 AGATAGGAATAAATTGTATTAGCAACGAGAAGGATCAAGAGAAGAAAATGGAAGACAA
 CGATCAACACACCTATAATTGGAATCCGAAGGAAGAGAAGTGAACAAAAAAGGAACCG
 ATTAATAATATTATAACAAAAAGTGGGAAGCACACAAGTTTAAACATCTAATAAAAATATT
 AAATAAAAAATCGAATAATGTCAGATCAAAAAAGTAAAAATTAATCTATGCACATTTCAA
 GTGTAAGGTCAAACACAGAACAAATACATTACAACCTAATGGAAAAGAATCCTCAAAAAA
 GACGAAAATAACATGCCTATAGTATGAAAAACGAATAAAAAATATAAACAATCTCAAAAA
 CTAAAAAGCTATTAATATTAGTAAAAAATAAAAAATATAAATCAATAAAAGATCTATA
 TGAAAAAATAGATAACTAGAGAAAAACATATATGAATAAAAAATTGATATACAGTAAAAA
 ATAAATATTACATGAATGATTGTACTCATAATCAGAATCTCAAACTAGAATAAAGAAAA
 AGTGTATAGAATATTCAATAGAATCAAAATATTACCTAAATATATACCAAGAATCTTAT
 ATAATAAGAACACTGAAAATATTTATAAATTATAAGAGATGAGCAGCCTATAAAAAACGTG
 CTCCATTACTCCTTGGTATGAATAACACATATATAGATAATTCTAATAAGATATGCAGCA
 TAAGCATATCTCGGAAACGACGGAGTGATAATTCATAAAATCACTATATGATTATTAAGA
 ACTACTGATATATCATAAATAAGGATTCGACTACATGATTATATTGGTATCGTAATCGAT
 GAGTCAATATGACAACATAATACGATACATGGAGTCATATTCATATACTGACTTATCAC
 ACTTACACAAG

Restriction Sites:

NotI-NotI

ACCN:

NM_004613

Insert Size:

4500 bp

OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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:	<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_004613.2 , NP_004604.2
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> <p>Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (a). Both variants 1 and 5 encode the same isoform (a). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.</p>