

Product datasheet for **RC217353**

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:	Myc-DDK
Symbol:	Transglutaminase 2
Synonyms:	G(h); hTG2; TG(C); TGC; tTG
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide
Sequence:

>RC217353 representing NM_004613
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC217353 representing NM_004613
Red=Cloning site Green=Tags(s)

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MAEELVLERCDLELETNGRDHHTADLCREKLVVRRGQPFWLTLHFEGRNYESVDSLTFSSVVTGPAPSQE
AGTKARFPLRDAVEEGDWTATVVDQDCTL SLQLTTPANAPIGLYRLEASTGYQGSSVFLGHFILLFN
AWCPADAVYLDSEERQEYVL TQQGFIYQGS AKFIKNIPWNFGQFEDGILDICLILLD VNPKFLKNAGR
CSRSSPVYVGRVVS GMVNCDDQGVLLGRWDN NYGDGVS PMSWIGSVDILRRWKNHG CQRVKYQGCWVF
AAVACTVLRCLGIPTRVVTNYNSAHDQNSLLIEYFRNEFGEIQGDKSEMIWNFHCVESWMTRPDLQPG
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IKVRALLVEPVINSYLLAERDLYLENPEIKIRILGEPKQKRKLVAEVS LQNLPLVALEGCTFTVEGAGLT
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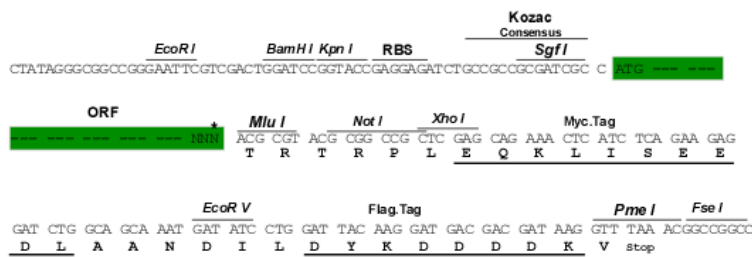
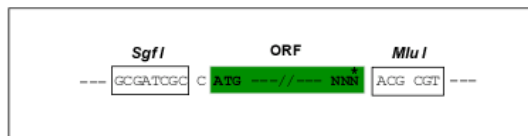
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg2409_b04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_004613

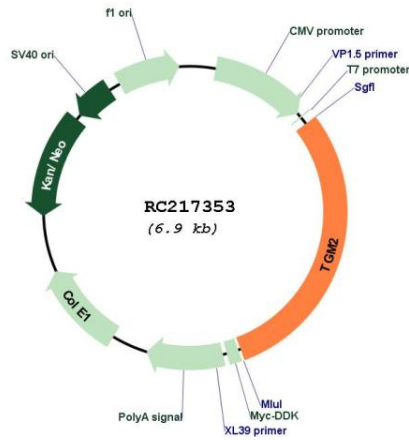
ORF Size: 2061 bp

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](#)

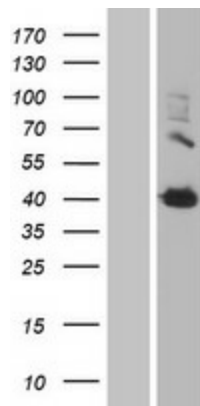
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:	<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_004613.4
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
MW:	77.1 kDa
Gene Summary:	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]

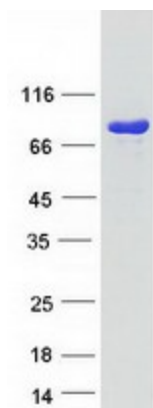
Product images:



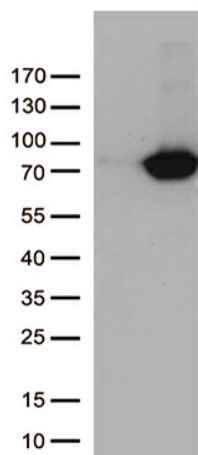
Circular map for RC217353



Western blot validation of overexpression lysate (Cat# [LY401458]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217353 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TGM2 protein (Cat# [TP317353]). The protein was produced from HEK293T cells transfected with TGM2 cDNA clone (Cat# RC217353) using MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY TGM2 (Cat# RC217353, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-TGM2 (Cat# [TA809245]). Positive lysates [LY401458] (100ug) and [LC401458] (20ug) can be purchased separately from OriGene.