

## Product datasheet for **RC202705**

### Transglutaminase 4 (TGM4) (NM\_003241) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Transglutaminase 4 (TGM4) (NM_003241) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Transglutaminase 4
Synonyms:	hTGP; TGP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide  
Sequence:

>RC202705 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGATGGATGCATCAAAGAGCTGCAAGTCTCCACATTGACTTCTTGAATCAGGACAACGCCGTTTCTC  
ACCACACATGGGAGTTCCAAACGAGCAGTCCTGTGTTCCGGCGAGGACAGGTGTTTCACCTGCGGCTGGT  
GCTGAACCAGCCCTACAATCCTACCACCAACTGAAACTGGAATTCAGCACAGGGCCGAATCCTAGCATC  
GCCAAACACACCCTGGTGGTGTCTGACCCGAGGACGCCCTCAGACCACTACAACCTGGCAGGCAACCCCTC  
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TGGTGTAAGAGGACATGGTTTTCATGCCTGATGAGGACGAGCGCAAAGAGTACATCCTCAATGACACGG  
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CTGGTGTGCAGGGCCATGTGTGCTATGATGAGCTTTGAGAAAGGCCAGGGCGTGCTATTGGGAATTGGA  
CTGGGGACTACGAAGGTGGCACAGCCCCATAACAAGTGGACAGGCAGTGCCCCGATCCTGCAGCAGTACTA  
CAACACGAAGCAGGCTGTGTGCTTTGGCCAGTGTGGGTGTTGCTGGGATCCTGACTACAGTGTGAGA  
GCGTTGGGCATCCAGCACGCGAGTGTGACAGGCTTCGATTCAGCTCACGACACAGAAAGGAACCTCACGG  
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GCAACGTCGCAGGAGCGAAGCCAGGGTGTCTTCTGTTGTGGGCCATCACCAGTACCCGATCCGCAAAG  
GTGACATCTTTATTGTCTATGACACCAGATTCTGTTCTCAGAAGTGAATGGTGACAGGCTCATCTGGTT  
GGTGAAGATGGTGAATGGGCAGGAGGAGTTACAGTAATTTCAATGGAGACCACAAGCATCGGGAAAAAC  
ATCAGCACCAAGGCAGTGGGCCAAGACAGGCGGAGAGATACACCTATGAGTACAAGTATCCAGAAGGCT  
CCTCTGAGGAGAGGCAGGTCATGGATCATGCCTTCTCCTTCTCAGTTCTGAGAGGGAGCACAGACGACC  
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TGTACTGTCGCAAGAAGATGGCAAACCTGTGTGACCTCAATAAGACCTCGCAGATCCAAGGTCAAGTATC  
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TATCTTCAAGAATACCCTGGCCATCCCTTTGACTGACGTCAAGTCTCTTTGAAAAGCCTGGGCATCTCC  
TCACTACAGACCTCTGACCATGGGACGGTGCAGCCTGGTGGAGCCATCCAATCCCAAATAAAATGCACCC  
CAATAAAAACCTGGACCAAGAAATTTATCGTCAAGTTAAGTTCCAACAAGTGAAGAGATTAATGCTCA  
GAAGATTGTTCTCATACCAAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAAGTTTAA

**Protein Sequence:** >RC202705 protein sequence  
 Red=Cloning site Green=Tags(s)

```
MMDASKELQVLHIDFLNQDNAVSHHTWEFQTSSPVFRRGQVFHLRLVLNQPLQSYHQKLEFSTGPNPSI
AKHTLVLDPRTPSDHYNQATLQNESGKEVTVAVTSSPNAILGKYQLNVKTGNHILKSEENILYLLFNP
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LVCRAMCAMMSFEKGGQVLIIGNWTGDYEGGTAPYKWTGSAPILQQYYNTKQAVCFGQCWVFAGILTTVLR
ALGIPARSVTGFDSAHDTERNLTVDTYVNEGENEKITSMTHDSVWNFHVWTDAMMKRPDLPGYDQWQAVD
ATSQERSQGVFCCGPSPLTAIRKGDIFIVYDTRFVFSEVNGDRLIWLKVMVNGQEELHVISMETTISIGKN
ISTKAVGQDRRRDITYEYKYPEGSSEERQVMDHAFLLSSEREHRRPVKENFLHMSVQSDVLLGNVSNF
TVILKRKTAALQNVNILGSFELQLYTGGKMAKCDLNKTSQIQGQVSEVTLTLDISKTYINSLAILDDEPV
IRGFIIAEIVESKEIMASEVFTSFQYPEFSIELPNTGRIGQLLVCNCFKNTLAIPLTDVKFSLESLSGIS
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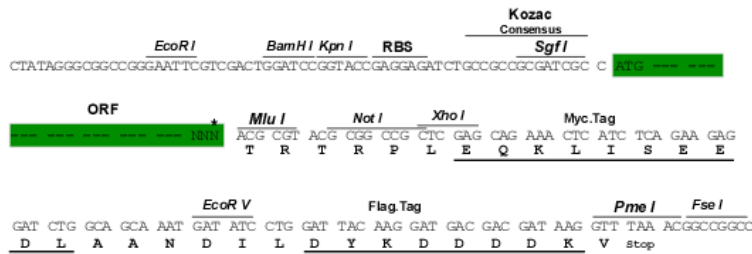
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6414\\_d11.zip](https://cdn.origene.com/chromatograms/mk6414_d11.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\_003241

**ORF Size:** 2052 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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\\_003241.4](#)

**RefSeq Size:** 3027 bp

**RefSeq ORF:** 2055 bp

**Locus ID:** 7047

**UniProt ID:** [P49221](#)

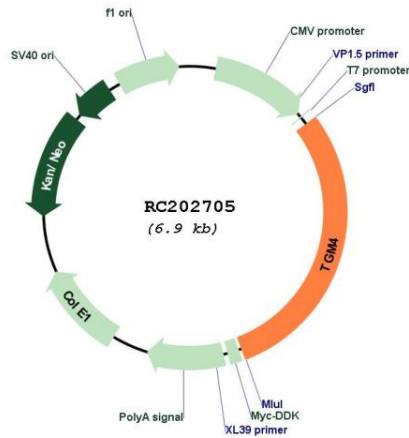
**Cytogenetics:** 3p21.31

**Protein Families:** Druggable Genome

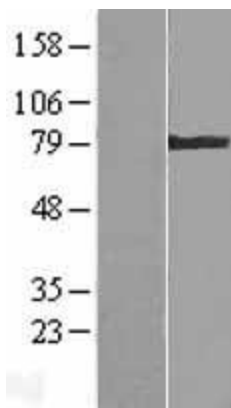
**MW:** 77.1 kDa

**Gene Summary:** Associated with the mammalian reproductive process. Catalyzes the cross-linking of proteins and the conjugation of polyamines to specific proteins in the seminal tract.[UniProtKB/Swiss-Prot Function]

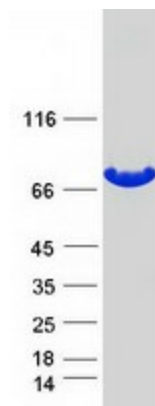
Product images:



Circular map for RC202705



Western blot validation of overexpression lysate (Cat# [LY418817]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202705 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TGM4 protein (Cat# [TP302705]). The protein was produced from HEK293T cells transfected with TGM4 cDNA clone (Cat# RC202705) using MegaTran 2.0 (Cat# [TT210002]).