

## Product datasheet for **MC220496**

### **Tgm3 (NM\_009374) Mouse Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Tgm3 (NM_009374) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Tgm3
Synonyms:	A1893889; TG(E); TGase-3; TGase E; TG E; TGE; we
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**Fully Sequenced ORF:** >MC220496 representing NM\_009374  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGAGTGCCTTTACAGATCCAAAACGTCAACTGGCAGGTGCCTATGAATCGAAGGGCGCATCACACAGACA  
 AGTTCTCCAGCCAGGATTCCATTGTGCGGAGAGGACAGCCCTGGGAGATAATATTAGTCTGCAACCGAAG  
 TCTTGAGTCTGGAGAAGATCTGAATTTCAATGTTCCACAGGTCCCAACCCCTCTGAGTACGCCAGGACA  
 AAGGCTGTATTTCCATCTCTGGGAGAAGCAGGGTGGCTGGAATGCAGCGCTCAAAGCCAACAGTGGCA  
 ATAATCTGGCCATTGCTATTGCCAGTCTGTCACTGCTCCATCGGATTGTACACACTGAGTGTGAGAT  
 CTCCTCCAGGGCAGGGCCTCTCTGAAACTTGGCACGTTTATAATGCTCTTCAACCCGTGGTTGCAA  
 GCGGATGATGTCTTTATGAGTAACCACGCCGAAAGACAAGAGTATGTTGAAGAAGATTCTGGCATCATCT  
 ATGTGGGCAGCACAAATCGAATTGGCATGGTGGCTGGAACCTTGGACAGTTTGAAGAAGACATTCTGAA  
 CATCAGCCTCTCCATTTGGATAGGAGTCTGAATTTCCGTCGTGACCCTGTGACTGATGTGGCTCGCAGA  
 AATGACCCCAAATATGTTTGCCGGGTGCTGAGTGCATGATTAATGGCAATGATGACAACCGTGTTATTT  
 CTGGGAACTGGAGTGGTAATTACACCGGTGGTGTGGACCAAGGACCTGGAATGGTAGTGTGGAGATCCT  
 CAAGAAGTGGAAAAATCTGGCTTCAGGCCAGTCCAATTTGGCCAGTGTGGGTCTTTGCTGGAACCCCTC  
 AACACAGTGTGCGGTGCTTGGGGTTCCTCTCGGGTATCACCAACTCAACTCGGCTCACGACACAG  
 ATCGAAACCTCAGTGTGGATGTACTACGATGCCATGGGAAATCCCCTGGAGAAAGGCAGTGTAGCGT  
 GTGGAATTTTACGTCTGGAATGAAGGCTGGTTCGTGCGGACTGACCTAGGCCCCACATAACAATGGATGG  
 CAGGCTGGATGCCACCCCCAGGAGAGAAGTCAAGGTGTGTTCCAGTGCAGTCCAGCTTCCGTTAATG  
 CAATCAAAGCCGGTGTGACCGGAAATTTGACATGATCTTCATCTTCGCGGAGGTTAATGCAGATCG  
 CATCACTTGGATCTATAATAATAGAAATAACACCCAGAAGCAGAATTCTGTGGACACTCACTCCATTGGC  
 AAATACATCAGCACCAAGGCAGTAGGCAGCAACTCTCGCATGGATGTACAGACAAGTACAAGTATCCAG  
 AAGTTCCAGTGAGGAAAGACAAGTGCACAAAAGGCTTTGGACAACTCAAACCTAACGCATCTTTGCG  
 CGCAACATCTTCGAGGAATCCAGAAGGGGAAGACAAGGAGCCAGCATTCTGGGAAGTTCAAGGTCACG  
 GGGATACTGGCAGTAGGCAAAGAAGTCACTGTCCCTGATGCTCAAAAACATGACTAATGACAGGAAGA  
 CAGTGACGATGAACATGACAGCCTGGACCATCGTCTACAATGGTACCCTGTCCACGAAGTGTGGAAGGA  
 CTCAGCCACAATATCCTTGGATCCTGAAGAAGAAATACAGTATCCTGTGAAGATCGCATACTCTCAGTAT  
 GAGAGATACCTGAAGGCAGACAACATGATCCGGATCACAGCTGTTTGAAGGTGCCCGATGAGGCTGAGG  
 TGGTGGTGAACGGGATGTCATCCTGGATAATCCTGCTTTGACCCCTGGAGGTGCTGGAACAGGCTCATGT  
 GCGGAAGCCCGTGAACGTGCAGATGCTTTTCTCAACCCCTGGACCAGCCGGTGAATAACTGCGTGCTG  
 CTGGTGGAGGGCAGCGGCTGCTGCGTGGCAGCCTCAAGATTGATGTGCCATCCCTGCGCCCAAGGAGA  
 AGTCCCGCATCCGATTTGAGATTTCCCACTCGGAGTGGCACCAGCAACTGCTCGCTGACTTTTCCTG  
 CAATAAATCCCTGCAATCAAGGCCATGCTGCCATTGATGTCTCTGAG**TGA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM\_009374
- Insert Size:** 2082 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:**

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\\_009374.3](#), [NP\\_033400.2](#)

**RefSeq Size:** 4144 bp

**RefSeq ORF:** 2082 bp

**Locus ID:** 21818

**UniProt ID:** [Q08189](#)

**Cytogenetics:** 2 F1

**Gene Summary:** Catalyzes the calcium-dependent formation of isopeptide cross-links between glutamine and lysine residues in various proteins, as well as the conjugation of polyamines to proteins. Involved in the formation of the cornified envelope (CE), a specialized component consisting of covalent cross-links of proteins beneath the plasma membrane of terminally differentiated keratinocytes. Catalyzes small proline-rich proteins (SPRR1 and SPRR2) and LOR cross-linking to form small interchain oligomers, which are further cross-linked by TGM1 onto the growing CE scaffold (By similarity). In hair follicles, involved in cross-linking structural proteins to hardening the inner root sheath.[UniProtKB/Swiss-Prot Function]