# Transglutaminase 2, Tissue (TGM2) ELISA Kit for Mouse

## PRODUCT OVERVIEW

| | |
|---|---|
| **Product Name** | Transglutaminase 2, Tissue (TGM2), ELISA Kit |
| **Full Product Name** | Mouse Transglutaminase 2, Tissue ELISA Kit |
| **Product Gene Name** | TGM2 elisa kit |
| **Species Reactivity** | Mouse |
| **Assay Type** | Quantitative Sandwich |
| **Detection Range** | 0.625ng/ml-20ng/ml |
| **Sensitivity** | 0.1ng/ml |
| **Specificity** | No significant cross-reactivity or interference between Mouse TGM2 and analogues was observed. |
| **Preparation and Storage** | Store all reagents at 2-8 degree C |
| **Inter-assay Precision** | Inter-assay CV (%) is less than 15%. [CV(%) = SD/mean ×100]. All CV% should be compared by concentration, not compared by OD values. |
| **Intra-assay Precision** | Intra-assay CV (%) is less than 15%. |
| **Molecular Weight** | 77,329 Da |
| **OMIM** | 190196 |
| **3D Structure** | ModBase 3D Structure for P21980 |
| **Related Product Information for TGM2 elisa kit** | Background: This Quantitative Sandwich ELISA kit is for lab reagent/research use only, not for drug, household, therapeutic or test applications! This kit is intended to be used to determine the level of TGM2 (hereafter termed "analyte") in undiluted original Mouse serum, plasma or tissue homogenates samples. For other sample types please contact tech support to determine compatibility with this assay. This kit is not suitable for assaying non-biological sources of substances. |
| **Other Notes** | Small volumes of TGM2 elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply. |
| **Searchable Terms for TGM2 purchase** | MBS052665 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Transglutaminase 2, Tissue (TGM2) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing TGM2. The ELISA analytical biochemical technique of the MBS052665 kit is based on TGM2 antibody-TGM2 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect TGM2 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, TGM2. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%). |

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for TGM2. It may not necessarily be applicable to this product.

| | |
|---|---|
| **NCBI GI #** | 50593093 |
| **NCBI GeneID** | 7052 |
| **NCBI Accession #** | AAT79353.1 |
| **UniProt Primary Accession #** | P21980 |

| | |
|---|---|
| **UniProt Secondary Accession #** | Q16436; Q6B838; Q9BTN7; Q9UH35; E1P5V9 |
| **UniProt Related Accession #** | P21980 |
| **NCBI Official Full Name** | transglutaminase 2 |
| **NCBI Official Synonym Full Names** | transglutaminase 2 |
| **NCBI Official Symbol** | TGM2 |
| **NCBI Official Synonym Symbols** | TG2; TGC; GNAH; HEL-S-45; G-ALPHA-h |
| **UniProt Protein Name** | Protein-glutamine gamma-glutamyltransferase 2 |
| **UniProt Synonym Protein Names** | Tissue transglutaminase; Transglutaminase C; TG(C); TGC; TGase C; Transglutaminase H; TGase H; Transglutaminase-2 |
| **Protein Family** | Protein-glutamine gamma-glutamyltransferase |
| **UniProt Gene Name** | TGM2 |
| **UniProt Synonym Gene Names** | TG(C); TGC; TGase C; TGase H; TGase-2 |
| **UniProt Entry Name** | TGM2_HUMAN |
| **NCBI Protein Information** | protein-glutamine gamma-glutamyltransferase 2; TG(C); TGase C; TGase H; TGase-2; TGase-H; transglutaminase C; transglutaminase H; transglutaminase-2; tissue transglutaminase; epididymis secretory protein Li 45; protein-glutamine-gamma-glutamyltransferase; C polypeptide, protein-glutamine-gamma-glutamyltransferase |
| **NCBI Summary for TGM2** | 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] |
| **UniProt Comments for TGM2** | TGM2: an enzyme of the transglutaminase family that catalyzes the crosslinking of proteins and the conjugation of polyamines to proteins. 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. . Is the autoantigen in coeliac disease and plays a role in apoptosis, cellular differentiation and matrix stabilisation. Three alternatively spliced isoforms have been described.<br><br>Protein type: Transferase; EC 2.3.2.13<br><br>Chromosomal Location of Human Ortholog: 20q12<br><br>Cellular Component: focal adhesion; mitochondrion; plasma membrane; cytosol<br><br>Molecular Function: protein domain specific binding; protein binding; GTP binding; protein-glutamine gamma-glutamyltransferase activity; metal ion binding<br><br>Biological Process: elevation of cytosolic calcium ion concentration during G-protein signaling, coupled to IP3 second messenger (phospholipase C activating); positive regulation of I-kappaB kinase/NF-kappaB cascade; positive regulation of cell adhesion; positive regulation of apoptosis; isopeptide cross-linking via N6-(L-isoglutamyl)-L-lysine; reduction of endoplasmic reticulum calcium ion concentration; positive regulation of smooth muscle cell proliferation; blood vessel remodeling; protein homooligomerization; apoptotic cell clearance; elevation of mitochondrial calcium ion concentration; positive regulation of inflammatory response |
| **Research Articles on TGM2** | **1.** Accumulation of TG2 in tumor stroma is an independent risk factor for identifying breast cancer patients at high risk of recurrence. |
| **Precautions** | All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines. |

| | |
|---|---|
| **Disclaimer** | While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice.<br><br>It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information. |
| **Product Note** | Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details. |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures.

**MyBioSource** | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/tgm2-mouse-elisa-kits/transglutaminase-2-tissue/52665