# Active Recombinant Human TGM2 Protein, His tagged

**Cat. No.** TGM2-033H **Lot. No.** (See product label)

## SPECIFICATION

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| **Product Overview** | Active Recombinant Human TGM2 Protein with His tag was expressed in Insect cells. |
| **Species** | Human |
| **Source** | Insect cells |
| **Description** | 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. |
| **Form** | (Frozen) Liquid. Supplied in 10 mM Tris-HCl pH 7.2, 150 mM NaCl, 0.5 mM EDTA, 0.5 mM DTT, 10% Glycerol. |
| **Bio-activity** | > 2000 U/mg [Activity is determined by measuring the rate of fluorescence enhancement after His6-rhTG2-catalyzed monodansylcadaverine-incorporation into N,N-dimethylated casein according to Lorand et al., Anal. Biochem. 44 (221-231)]. 1 U is defined as the increase in fluorescence intensity of 1 a.u./min (measured on a Cary eclipse fluorescence spectrophotometer, Varian; λex = 332 nm, λem = 500 nm; band filter = 5 nm; detector strength = 600 V; temperature = 37 centigrade, assay volume = 1 mL)]. |
| **Molecular Mass** | 78 kDa (Val224-allele) |

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| **Endotoxin** | Endotoxin free |
| **Applications** | His6-rhTG2 catalyzes acyl transfer reactions from glutamin residues in proteins or peptides to primary amines, e. g. the formation of ε-(γ-glutamyl) lysine bonds between proteins by transferring the acyl group of a peptide-bound glutamine residue to the primary amino group of a peptide-bound lysine residue. His6-rhTG2 may also be used for immunoprecipitation. This product is suitable for cell culture use. |
| **Notes** | Intended for research use only, not for use in human, therapeutic or diagnostic applications. |
| **Storage** | Store working aliquots at ≤ - 20 centigrade. Avoid repeated freeze-thaw cycles. |
| **Activation** | Add 10 mM Ca2+ to activate His6-rhTG2 |
| **CAS** | 80146-85-6 |
| **EC** | EC 2.3.2.13 |

## GENE INFORMATION

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| **Gene Name** | TGM2 transglutaminase 2 (C polypeptide, protein-glutamine-gamma-glutamyltransferase) [ Homo sapiens ] |
| **Official Symbol** | TGM2 |
| **Synonyms** | TGM2; transglutaminase 2 (C polypeptide, protein-glutamine-gamma-glutamyltransferase); protein-glutamine gamma-glutamyltransferase 2; TGC; TG(C); TGase C; TGase H; TGase-2; TGase-H; C polypeptide; transglutaminase C; transglutaminase H; transglutaminase-2; tissue transglutaminase; protein-glutamine-gamma-glutamyltransferase; TG2; GNAH; G-ALPHA-h; |

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| **Gene ID** | 7052 |
| **mRNA Refseq** | NM_004613 |
| **Protein Refseq** | NP_004604 |
| **MIM** | 190196 |
| **UniProt ID** | P21980 |

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