

Active Recombinant Human TGM2 Protein, His-tagged

Cat. No. TGM2-9173H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Human TGM2 Protein(1-687 aa), fused with N-terminal His tag, was expressed in E.coli.
Species	Human
Source	E.coli
ProteinLength	1-687 aa
Form	PBS, pH7.4, containing 0.01% SKL, 5%Trehalose.
Bio-activity	Transglutaminase 2 (TGM2), encoded by the TGM2 gene, is belongs to the family of transglutaminases that catalyze the posttranslational modification of proteins via calcium dependent cross-linking reactions. In addition to its function in protein cross-linking, TGM2 is also capable of hydrolyzing both GTP and ATP and has intrinsic kinase activity. TGM2 has been implicated in a variety of human diseases including celiac disease, inclusion body myositis, atherosclerosis, and neurodegenerative diseases. The activity of recombinant human TGM2 is measured by its ability to cleave a synthetic peptide Benzyloxycarbonyl-Gln-Gly and NH₂OH in the assay buffer 200 mM MES, 10 mM DTT, 10 mM CaCl₂, 100 mM Hydroxylamine Hydrochloride, pH 6.0. The rhTGM2 is diluted to 12.5 ug/ml in assay buffer. Loading into a clear well plate 50 μ of 12.5 ug/mL rhTGM2 and start the reaction by adding 50 μ of 100 mM substrate, with a substrate blank containing 50 μ assay buffer, 50 μ substrate, and no rhTGM2. Incubated at 37°C for 2 hours and stop the reaction with

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400 ul stop solution of 0.37 M FeCl₃, 0.67 M HCl 0.2 M Trichloroacetic Acid.
Centrifuge at 2000 rpm for 2 minutes and then load 200 ul of the supernatant into a plate and read at 525 nm (absorbance) in endpoint mode. The specific activity of recombinant human TGM2 is > 800 pmol/min/g.

Molecular Mass	78.6 kDa
Endotoxin	<1.0EU per 1µg (determined by the LAL method).
Purity	>95%
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.
Reconstitution	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

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;
Gene ID	7052

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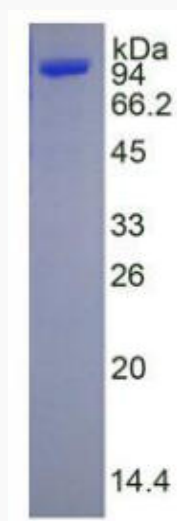
mRNA Refseq [NM_004613](#)

Protein Refseq [NP_004604](#)

MIM [190196](#)

UniProt ID [P21980](#)

SDS-PAGE



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