

Transglutaminase 2 (TGM2) Active Protein | TGM2 active protein

Active Transglutaminase 2 (TGM2)

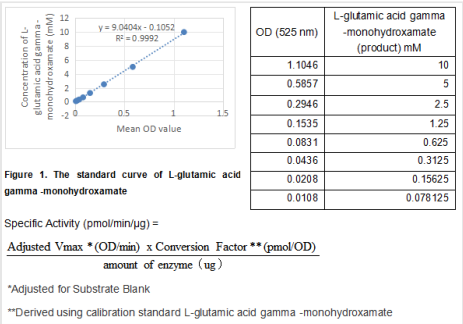
CATALOG # AAA161864	HOST E Coli	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

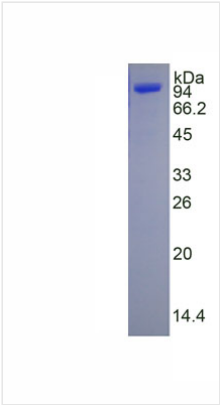
Transglutaminase 2 (TGM2); Active Transglutaminase 2 (TGM2); Transglutaminase 2; tTG; TG2; C Polypeptide; Protein-Glutamine-Gamma-Glutamyltransferase; Tissue; Transglutaminase C; Transglutaminase H4; TGM2 active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	Greater than 95% by SDS-PAGE
Form/Format	Freeze-dried powder; PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Sequence	Met1~Ala68 7
Applicable Applications for TGM2 active protein	Activity Assay, Cell Culture
Species	Human
Expression System	Prokaryotic expression
Tag	N-terminal His Tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method)
Isoelectric Point	4.8
Research Area	Infection immunity
Preparation and Storage	Store at 2-8 degree C for one month, -80 degree C for 12 months



SDS-PAGE
Figure. SDS-PAGE



Bioactivity

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 Benzylloxycarbonyl-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 uL of 12.5 ug/mL rhTGM2 and start the reaction by adding 50 uL of 100 mM substrate, with a substrate blank containing 50 uL assay buffer, 50 uL substrate, and no rhTGM2. Incubated at 37 degree C for 2 hours and stop the reaction with 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/ug.

ADDITIONAL INFORMATION

Product Categories/Family for TGM2 active protein	Active proteins
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NCBI AND UNIPROT INFORMATION

NCBI GI #	39777597
NCBI GeneID	7052
NCBI Accession #	NP_004604.2
NCBI GenBank Nucleotide #	NM_004613.2
UniProt Accession #	P21980; Q16436; Q6B838; Q9BTN7; Q9UHQ5; E1P5V9
Molecular Weight	77,329 Da
NCBI Official Full Name	protein-glutamine gamma-glutamyltransferase 2 isoform a
NCBI Official Synonym Full Names	transglutaminase 2 (C polypeptide, protein-glutamine-gamma-glutamyltransferase)
NCBI Official Symbol	TGM2
NCBI Official Synonym Symbols	TG2; TGC; GNAH; G-ALPHA-h
NCBI Protein Information	protein-glutamine gamma-glutamyltransferase 2; TG(C); TGase C; TGase H; TGase-2; TGase-H; C polypeptide; transglutaminase C; transglutaminase H; transglutaminase-2; tissue transglutaminase; protein-glutamine-gamma-glutamyltransferase
UniProt Protein Name	Protein-glutamine gamma-glutamyltransferase 2
UniProt Gene Name	TGM2
UniProt Synonym Gene Names	TG(C); TGC; TGase C; TGase H; TGase-2

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/e-coli-active-protein/transglutaminase-2-tgm2/161864>