

# Recombinant mouse Transglutaminase 2/TGM2 protein

Catalog Number: ATGP3041

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

1-686aa

### UniProt No.

P21981

### NCBI Accession No.

NP\_033399.1

### Alternative Names

Protein-glutamine gamma-glutamyltransferase 2, Protein-glutamine gamma-glutamyltransferase 2, G[a]h, TG2, TGase2, tTG, tTGas

## PRODUCT SPECIFICATION

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### Molecular Weight

79.4 kDa (709aa)

### Concentration

0.5mg/ml (determined by Bradford assay)

### Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol, 1mM DTT

### Purity

> 85% by SDS-PAGE

### Tag

His-Tag

### Application

SDS-PAGE

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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### Description

Tgm2, also known as protein-glutamine gamma-glutamyltransferase 2 is calcium dependent enzyme of the protein-glutamine gamma-glutamyltransferases family. Like other transglutaminases, it crosslinks proteins between an epsilon-amino group of a lysine residue and a gamma-carboxamide group of glutamine residue, creating an inter- or intramolecular bond that is highly resistant to proteolysis (protein degradation). Aside from its crosslinking function, tTG catalyzes other types of reactions including deamidation, GTP-binding/hydrolyzing,

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and isopeptidase activities. Unlike other members of the transglutaminase family, tTG can be found both in the intracellular and the extracellular spaces of various types of tissues and is found in many different organs including the heart, the liver, and the small intestine. Recombinant mouse Tgm2 protein, fused to His-tag at N-terminus, was expressed in *E. coli* and purified by using conventional chromatography techniques.

## Amino acid Sequence

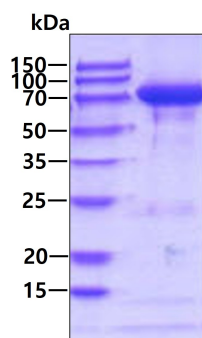
<MGSSHHHHHH SSGLVPRGSH MGS>MAEELL ERCDLEIQAN GRDHHTADLC QEKLVLRRGQ RFRLTYFEG  
 RGYEASVDSL TFGAVTGPDP SEEAGTKARF SLSDNVEEGS WSASVLDQQD NVLSLQLCTP ANAPIGLYRL SLEASTGYQG  
 SSFVLGHFIL LYNAWCPADD VYLDSEEERR EYVLTQQGFI YQGSVKFIKS VPWNFGQFED GILDTCLMLL DMNPKFLKNR  
 SRDCSRRSSP IYVGRVVSAM VNCNDDQGV LGRWDNNYGD GISPMAWIGS VDILRRWKEH GCQQVKYGQC  
 WVFAAVACTV LRCLGIPTRV VTNYNSAHDQ NSNLLIEYFR NEFGELESNK SEMIWNFHCW VESWMTRPDL QPGYEGWQAI  
 DPTPQEKSEG TYCCGPVSVR AIKEGDLSTK YDAPVFVAEV NADVVDWIRQ EDGSVLKSIN RSLVVGQKIS TKSVMGRDDRE  
 DITHYKYPE GSPEEREVFT KANHLNKLAE KEETGVAMRI RVGDSMSMGN DFDVFAHIGN DTSETRECL LLCARTVSYN  
 GVLGPECGTE DINLTLDPYS ENSIPLRILY EKYSGLTES NLIKVRGLLI EPAANSYLLA ERDLYLENPE IKIRVLGEPK  
 QNRKLVAEVS LKNPLSDPLY DCIFTVEGAG LTKEQKSVEV SDPVPAGDLV KARVDLFPTD IGLHKLNVNF QCDKLVKVG  
 YRNVIIGPA

## General References

Nanda N., et al. (1999) Arch. Biochem. Biophys. 366:151-156

## DATA

### SDS-PAGE



3µg by SDS-PAGE under reducing condition and visualized by coomassie blue stain.