

Tgm2, 1-686aa

Mouse, His-tagged, Recombinant, E.coli

Cat. No. IBATGP3041

Full name: Protein-glutamine gamma-glutamyltransferase 2

NCBI Accession No.: NP_033399

Synonyms: G[a]h, TG2, TGase2, tTG, tTGas

Description: Tgm2, also known as protein-glutamine gamma-glutamyltransferase 2 is calcium dependent enzyme of the protein-glutamine γ -glutamyltransferases family. Like other transglutaminases, it crosslinks proteins between an ϵ -amino group of a lysine residue and a γ -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, 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.

| Form : Liquid, In Phosphate buffered saline (pH7.4) containing 10% glycerol, 1mM DTT | (kDa) 150 100 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| Molecular Weight: 79.4kDa (709aa) | 50 35 25 |
| Purity: > 85% by SDS - PAGE | 20 |
| Concentration: 0.5mg/ml (determined by Bradford assay) | |
| | 15% SDS-PAGE (Sug) |
| Sequences of amino acids: | |
| MGSSHHHHHH SSGLVPRGSH MGSMAEELLL ERCDLEIQAN GRDHHTADLC QEKLVLRRGQ RFRLT | LYFEG RGYEASVDSL TFGAVTGPDP |
| SEEAGTKARF SLSDNVEEGS WSASVLDQQD NVLSLQLCTP ANAPIGLYRL SLEASTGYQG SSFVL | GHFIL LYNAWCPADD VYLDSEEERR |
| EYVLTQQGFI YQGSVKFIKS VPWNFGQFED GILDTCLMLL DMNPKFLKNR SRDCSRRSSP IYVGR | VVSAM VNCNDDQGVL LGRWDNNYGD |
| | |
| GISPMAWIGS VDILRRWKEH GCQQVKYGQC WVFAAVACTV LRCLGIPTRV VTNYNSAHDQ NSNLL | IEYFR NEFGELESNK SEMIWNFHCW |
| GISPMAWIGS VDILRRWKEH GCQQVKYGQC WVFAAVACTV LRCLGIPTRV VTNYNSAHDQ NSNLL VESWMTRPDL QPGYEGWQAI DPTPQEKSEG TYCCGPVSVR AIKEGDLSTK YDAPFVFAEV NADVV | IEYFR NEFGELESNK SEMIWNFHCW DWIRQ EDGSVLKSIN RSLVVGQKIS |
| GISPMAWIGS VDILRRWKEH GCQQVKYGQC WVFAAVACTV LRCLGIPTRV VTNYNSAHDQ NSNLL VESWMTRPDL QPGYEGWQAI DPTPQEKSEG TYCCGPVSVR AIKEGDLSTK YDAPFVFAEV NADVV TKSVGRDDRE DITHTYKYPE GSPEEREVFT KANHLNKLAE KEETGVAMRI RVGDSMSMGN DFDVF | IEYFR NEFGELESNK SEMIWNFHCW DWIRQ EDGSVLKSIN RSLVVGQKIS AHIGN DTSETRECRL LLCARTVSYN |
| GISPMAWIGS VDILRRWKEH GCQQVKYGQC WVFAAVACTV LRCLGIPTRV VTNYNSAHDQ NSNLL VESWMTRPDL QPGYEGWQAI DPTPQEKSEG TYCCGPVSVR AIKEGDLSTK YDAPFVFAEV NADVV TKSVGRDDRE DITHTYKYPE GSPEEREVFT KANHLNKLAE KEETGVAMRI RVGDSMSMGN DFDVF GVLGPECGTE DINLTLDPYS ENSIPLRILY EKYSGCLTES NLIKVRGLLI EPAANSYLLA ERDLY | IEYFR NEFGELESNK SEMIWNFHCW DWIRQ EDGSVLKSIN RSLVVGQKIS AHIGN DTSETRECRL LLCARTVSYN LENPE IKIRVLGEPK QNRKLVAEVS |

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General references:

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

D'Amato M., et al. (1999) Cell Death Differ. 6:216-217

Storage: Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

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