Active Recombinant Pig TGM2 Protein, His tagged

Cat. No. TGM2-034P **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Pig TGM2 Protein with His tag was expressed in E.coli.
Species	Pig
Source	E.coli
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	White lyophilized solid
Bio-activity	> 750 U/mg [Activity is determined by measuring the rate of fluorescence enhancement after sTG2-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 = 10 nm; detector strength = 600 V; temperature = 37 centigrade, assay volume = 1 mL)].
Molecular Mass	78 kDa

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Purity	> 95 %, visually by SDS-PAGE
Applications	sTG2 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. sTG2 may also be used for immunoprecipitation.
Storage	Store at -20 centigrade in working aliquots. Repeated freezing and thawing is not recommended. Delivery is possible at ambient temperature
Reconstitution	Add the volume of H2O the protein is lyophilized from to the vial of lyophilized powder. Rotate vial gently until solid dissolves. After reconstitution, the solution should be stored frozen in working aliquots. Keep cooled on ice for short term storage.
Activation	Add 10 mM Ca2+ to activate sTG2.
CAS	80146-85-6
EC	EC 2.3.2.13

GENE INFORMATION

Gene Name	TGM2 transglutaminase 2 [Sus scrofa (pig)]
Official Symbol	TGM2
Synonyms	TGM2; transglutaminase 2; protein-glutamine gamma-glutamyltransferase 2; tissue transglutaminase homologue; TGH2; transglutaminase 2 (C polypeptide, protein-glutamine-gamma-glutamyltransferase)

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Gene ID	100154530
mRNA Refseq	XM_003359989
Protein Refseq	XP_003360037
UniProt ID	A0A8D1Z1H8

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