Active Recombinant Dog TGM2 Protein, His tagged

Cat. No. TGM2-029D **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Dog TGM2 Protein with His tag was expressed in Insect cells.
Species	Dog
Source	Insect cells
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	> 2000 U/mg [Activity is determined by measuring the rate of fluorescence enhancement after His6-clTG2-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 = 5 nm; detector strength = 600 V; temperature = 37 centigrade, assay volume = 1 mL)].
Molecular Mass	78 kDa

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Purity	> 90 %, visually by SDS-PAGE
Applications	clTG2 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. His6-clTG2 may also be used for immunoprecipitation.
Notes	Intended for research use only, not for use in human, therapeutic or diagnostic applications.
Storage	Storage for several months is possible at ≤ - 20 centigrade. Delivery is possible at ambient temperature 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 His6-clTG2.
CAS	80146-85-6
EC	EC 2.3.2.13

GENE INFORMATION

Gene Name	TGM2 transglutaminase 2 (C polypeptide, protein-glutamine-gamma-glutamyltransferase) [Canis lupus familiaris]
Official Symbol	TGM2

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Synonyms	TGM2; transglutaminase 2 (C polypeptide, protein-glutamine-gamma-glutamyltransferase); protein-glutamine gamma-glutamyltransferase 2;
Gene ID	485867
mRNA Refseq	XM_038433808
Protein Refseq	XP_038289736
UniProt ID	A0A8C0KIJ9

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