

Product number **T072**
Revision number **RN3.0**

Product Name	Dog tissue transglutaminase (cITG2)
Synonym	Tissue-type Transglutaminase, TG2, TGase 2, proteinglutamine- γ -glutamyltransferase
Source	Recombinantly produced in insect cells
Quantity	250 μ g / 1 mg
Purity	> 90% [by SDS-PAGE]
Molecular Weight	78 kDa
Activity	> 1500 U/mg [Activity is determined by measuring the rate of fluorescence enhancement after His ₆ -cITG2-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; λ_{ex} = 332 nm, λ_{em} = 500 nm; band filter = 5 nm; detector strength = 600 V; temperature = 37 °C, assay volume = 1 ml)].
Application	cITG2 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. His ₆ -cITG2 may also be used for immunoprecipitation.
Appearance	White lyophilized solid.
Storage	Storage for several months is possible at \leq - 20°C. <i>Delivery is possible at ambient temperature</i>
Reagents	The Transglutaminase is lyophilized from 20 mM Tris-HCl pH 8.1, 150 mM NaCl, 1 mM EDTA, 1 mM DTT. Sample contains sucrose. His ₆ -rhTG2 is a Ca ²⁺ -dependent enzyme.
Reconstitution	Add the volume of H ₂ O the protein is lyophilized from (see Certificate of Analysis) 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 Ca ²⁺ to activate His ₆ -cITG2.
Storage	Store at -20 °C in working aliquots. Repeated freezing and thawing is not recommended. <i>Delivery is possible at ambient temperature</i>
Related products	A102 TG2-Assay Substance, Abz-APE(CAD-DNP)QEA-OH F002 Tissue Transglutaminase Assay Kit T101 1,3,4,5-Tetramethyl-2[(2-oxo-propyl)thio] imidazolium chloride Z006 Z-DON-Val-Pro-Leu-OMe
Release date	29 December 2021
NOTE	INTENDED FOR RESEARCH USE ONLY, NOT FOR USE IN HUMAN, THERAPEUTIC OR DIAGNOSTIC APPLICATIONS.