

Product number **T042**
Revision number **RN2.1**

Product Name	Human prostate Transglutaminase (TG4)
Synonym	Prostate Transglutaminase, TG4, TGase 4
Source	Recombinantly produced in <i>E. coli</i>
Quantity	100 µg
Molecular Weight	78 kDa
Activity	<p>> 30 U/mg [Activity is determined by measuring the rate of fluorescence enhancement after His₆-rhTG4-catalyzed monodansylcadaverine-incorporation into N,N-dimethylated casein according to Lorand et al., Anal. Biochem. 44 (221-231)].</p> <p>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)].</p>
Description	<p>His₆-rhTG4 is based on clone IMAGp958A10818Q2. It is N-terminally fused to a hexahistidine-tag resulting in the encoded N-terminal amino acid sequence MHHHHHHAEEELL....</p> <p>His₆-rhTG4 is produced in <i>E. coli</i> and purified by ion metal chelating chromatography to more than 95 % purity.</p>
Application	<p>His₆-rhTG4 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.</p> <p>His₆-rhTG4 may also be used for immunoprecipitation.</p>
Appearance	White lyophilized solid.
Reagents	The Transglutaminase is lyophilized from 10 mM Tris-HCl pH 8.1, 150 mM NaCl, 5 mM DTT, 1 mM EDTA. Sample contains maltodextrin.
Activation	Add 10 mM Ca ²⁺ to activate His ₆ -rhTG4.
Purity	> 95 % (visually by SDS-PAGE)
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.
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	<p>T036 Transglutaminase Assay Kit, fluorescent, Casein, Dansylcadaverine</p> <p>T101 1,3,4,5-Tetramethyl-2[(2-oxo-propyl)thio] imidazolium chloride</p> <p>A022 Polyclonal antibody to human prostate transglutaminase (TG4)</p>
Release date	05 August 2014
NOTE	INTENDED FOR RESEARCH USE ONLY, NOT FOR USE IN HUMAN, THERAPEUTIC OR DIAGNOSTIC APPLICATIONS.