

Product number **T011**  
Revision number **RN3.0**

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<b>Product Name</b>	Human transglutaminase 7
<b>Synonym</b>	TG7, TGase 7
<b>Source</b>	Recombinantly produced in E. coli
<b>Quantity</b>	250 µg
<b>Description:</b>	His <sub>6</sub> -rhTG7 is based on the TGM7-gene on plasmid pCRII-hTGz cl.14 (isolated by Daniel Aeschlimann), corrected by the insertion of a C at position 1169. It is N-terminally fused to a hexahistidine-tag. His <sub>6</sub> -rhTG7 is a Ca <sup>2+</sup> -dependent enzyme.
<b>Specific Activity</b>	> 500 U/mg [Activity is determined by measuring the rate of fluorescence enhancement after His <sub>6</sub> -rhTG7-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 <sub>ex</sub> = 332 nm, λ <sub>em</sub> = 500 nm; band filter = 5 nm; detector strength = 600 V; temperature = 37 °C, assay volume = 1 ml)].
<b>Molecular Weight</b>	81 kDa
<b>Application</b>	His <sub>6</sub> -rhTG7 catalyzes acyl transfer reactions from glutamin residues in proteins or peptides to primary amines, e. g. the formation of ε-(ε-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 <sub>6</sub> -rhTG7 may also be used for immunoprecipitation.
<b>Appearance</b>	White lyophilized solid.
<b>Reagents</b>	The Transglutaminase is lyophilized from 50 mM Tris-HCl pH 8.
<b>Activation</b>	Add 10 mM Ca <sup>2+</sup> to activate His <sub>6</sub> -rhTG7.
<b>Reconstitution</b>	Add the volume of water specified in the certificate of analysis under aliquotation to the vial of lyophilized powder. Rotate vial gently until solid dissolves. After reconstitution the solution should be stored frozen in working aliquots.
<b>Storage</b>	Store at ≤ - 20 °C. Store working aliquots at ≤ - 20 °C. Avoid repeated freezing and thawing. <b><i>Delivery at ambient temperature is possible</i></b>
<b>Reference(s)</b>	Kuramoto at al., Arch: Biochem Biophys. 2013; 537138-43; Fukui et al., FEBS J. 2013, 280:1420-9
<b>Related products</b>	T101 1,3,4,5-Tetramethyl-2[(2-oxo-propyl)thio] imidazolium chloride T036 Transglutaminase Assay Kit, fluorescent, Casein, Dansylcadaverine A040 Polyclonal antibody to human transglutaminase 7 (TG7)
<b>Release date</b>	23 December 2021
<b>NOTE</b>	INTENDED FOR RESEARCH USE ONLY, NOT FOR USE IN HUMAN, THERAPEUTIC OR DIAGNOSTIC APPLICATIONS.