

Product number **T013**
Revision number **RN2.0**

Product Name	Human epidermal transglutaminase, activated
Synonym	TG3a, TGase 3a, active epidermal protein-glutamin- ϵ - γ -glutamyltransferase
Source	Recombinantly produced in insect cells
Quantity	200 μ g
Molecular Weight	78 kDa (52kDa + 25kDa)
Description	<p>Active His₆-rhTG3 is based on the TGM3-allele from clone DKFZp686J0716 (isolated from different tissues), corrected by the insertion of the missing T at Position 435. It is N-terminally fused to a hexahistidine-tag resulting in the encoded N-terminal amino acid sequence MHHHHHHAALGV... .</p> <p>His₆-rhTG3 is produced in insect cells and purified by ion metal chelating and ion exchange chromatography to more than 95 % purity. The active Form is obtained by treatment with Dispase I. Active His₆-rhTG3 is a Ca²⁺-dependent enzyme.</p>
Appearance	White lyophilized solid.
Reagents	The Transglutaminase is lyophilized from 20 mM MOPS pH 6.0, 1 mM EDTA and 1 mM DTT. Sample contains maltodextrin.
Reconstitution	Add the desired volume H ₂ O to the vial of lyophilized powder. Rotate vial gently until solid dissolves. After reconstitution the solution should be cooled on ice for short term storage. Storage for several days is not recommended.
Application	<p>Active His₆-rhTG3 catalyzes acyl-transfer reactions from glutamine 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>Active His₆-rhTG3 may also be used for immunoprecipitation and the detection of TG3 autoantibodies.</p>
Storage	<p>Store at -80°C.</p> <p>If storage at -80°C is not possible, storage at \leq -20°C is recommended. While no formal stability data are available at -20°C, according to our overall experience stability is still given.</p> <p>Store working aliquots preferably at -80°C (if not possible at \leq -20°C, see comment above). Avoid repeated freezing and thawing.</p> <p><i>Delivery is possible at ambient temperature</i></p>
Reference(s)	Akbar et al., J. Med. Chem. 2017, 60:7910-27
Related products	T024 Human epidermal transglutaminase (TG3)
Release date	23 December 2021
NOTE	INTENDED FOR RESEARCH USE ONLY, NOT FOR USE IN HUMAN, THERAPEUTIC OR DIAGNOSTIC APPLICATIONS.