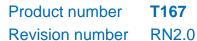
Product Data Sheet





Product Name Short human tissue transglutaminase, aa 1-465

(hTG2, Barrel 1 and 2 deletion-mutant)

Synonym Tissue-type Transglutaminase, TG2, TGase 2, proteinglutamine-γ-glutamyltransferase

Source Recombinant produced in *E. coli*

Quantity 250 μg

Molecular Weight 53.3 kDa

Description Short rhTG2 is a truncated variant of TG2 lacking both ß-barrel domains. The protein was

expressed in *E. coli* based on the TGM2-allele from I.M.A.G.E.-clone IMAGp958L121020 isolated from neuroblastoma cells of the human brain (Val224-allele, Kanchan et al., Biochem. J. 2013, 455:261–72). It is N-terminally fused to a hexahistidine-tag. Short rhTG2 was purified

by ion metal chelating chromatography (IMAC).

Activity Activity is determined by measuring the rate of fluorescence enhancement after rhTG2-

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; $\lambda_{ex} = 332$ nm, $\lambda_{em} = 500$ nm; band filter = 5

nm; detector strength = 600 V; temperature = 37°C, assay volume = 1 ml)].

Application rhTG2 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. rhTG2 may also be used for immunoprecipitation.

Appearance Liquid

Reagents The protein is stored in the following buffer: 20 mM Tris-HCl, 300 mM NaCl, pH 7,2. Sample

contains 25% (v/v) Glycerin.

Activation The Transglutaminase is activated with 10 mM Ca²⁺.

Important note: In order for the protein to be catalytically active, it is necessary to incubate the working

solution with a reducing agent, preferably 20-30 mM DTT, for at least 30 min at room

temperature, immediately before use.

Storage Store at \leq - 20°C. Store working aliquots at \leq - 20°C. Avoid repeated freezing and thawing.

Reference(s) Stamnaes et al, PLOS ONE, 2015, 10:e0134922

Related products A033 Monoclonal antibody to tissue transglutaminase (TG2, Core Domain)

F002 Tissue Transglutaminase Assay Kit

A102 TG2-Assay Substance, Abz-APE(CAD-DNP)QEA-OH

Release date 30 December 2021

NOTE INTENDED FOR RESEARCH USE ONLY, NOT FOR USE IN HUMAN, THERAPEUTIC OR

DIAGNOSTIC APPLICATIONS.