Product Data Sheet

Product number **T168**
Revision number RN3.0

Product Name	Human tissue transglutaminase, C230A mutant (hTG2, Cys230Ala-mutant)
Synonym	Tissue-type Transglutaminase, TG2, TGase 2, proteinglutamine-γ-glutamyltransferase
Source	Recombinantly produced in *E. coli*
Quantity	250 µg / 1 mg
Molecular Weight	78 kDa
Activity	> 1500 U/mg [Activity is determined by measuring the rate of fluorescence enhancement after His_6-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; λ_{ex} = 332 nm, λ_{em} = 500 nm; band filter = 5 nm; detector strength = 600 V; temperature = 37°C, assay volume = 1 ml)].
Description	His_6-rhTG2-Cys230Ala is 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 resulting in the encoded N-terminal amino acid sequence MAHHHHHHAEELV. At position 230 Cysteine has been replaced by Alanine. Please note that numeration corresponds to the wild type protein without hexahistidine-tag. His_6-rhTG2 is produced in *E. coli* and purified by ion metal chelating chromatography to more than 95% purity.
Application	His_6-rhTG2-Cys230Ala may be used for immunoprecipitation.
Appearance	White lyophilized solid.
Reagents	The Transglutaminase is lyophilized from 10 mM sodium phosphate buffer, 150 mM NaCl, pH 8.
Reconstitution	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. For short term storage keep cooled on ice.
Storage	Store at –20 °C in working aliquots. Repeated freezing and thawing is not recommended. ***Delivery at ambient temperature is possible***
Reference(s)	Stamnes et al., JBC 2010, 285:25402-9
Related products	T002 Human tissue transglutaminase T051 Open tTG™ A033 Monoclonal antibody to tissue transglutaminase (TG2, Core Domain)
Release date	23 November 2022
NOTE	INTENDED FOR RESEARCH USE ONLY, NOT FOR USE IN HUMAN, THERAPEUTIC OR DIAGNOSTIC APPLICATIONS.