Creative Enzymes®

Transglutaminase 1 from Human keratinocyte, Recombinant

Cat. No. NATE-1724

Lot. No. (See product label)

Introduction

Description	Transglutaminase is based on the TGM1-allele from I.M.A.G.E.-clone IRAKp961M1628 isolated from human skin squamous cell carcinoma. It is N-terminally fused to a hexahistidine-tag resulting in the encoded N-terminal amino acid sequence MHHHHHHMDGPR. Transglutaminase is purified by IMAC to more than 90 % purity.
Applications	This procuct 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. This product may also be used for immunoprecipitation.
Synonyms	transglutaminase; EC 2.3.2.13; 80146-85-6; transglutaminase; Factor XIIIa; fibrinoligase; fibrin stabilizing factor; glutaminylpeptide γ-glutamyltransferase; polyamine transglutaminase; tissue transglutaminase; R-glutaminyl-peptide:amine γ-glutamyl transferase; protein-glutamine γ-glutamyltransferase; TG1

Product Information

Species	Human
Source	Insect cells
Appearance	White lyophilized solid.
Form	The transglutaminase is lyophilized from 50 mM Tris-HCl pH 8.0, 10 mM Glutathion.
EC Number	EC 2.3.2.13
CAS No.	80146-85-6
Molecular Weight	90 kDa
Purity	> 90 % (visually by SDS-PAGE)
Activity	> 8,000 U/mg [Activity is determined by measuring the rate of fluorescence enhancement after transglutaminase-catalyzed monodansylcadaverine-incorporation into N,N-dimethylated casein according to Lorand et al., Anal. Biochem. 44 (221-231)].
Activators	Add 10 mM Ca2+ to activate transglutaminase.
Unit Definition	1 U is defined as the increase in fluorescence intensity of 1 a.u./min (measured on a Cary eclipse fluorescence spectrophotometer, Varian; λex = 332 nm, λem = 500 nm; band filter = 5 nm; detector strength = 600 V; temperature = 37°C, assay volume = 1 ml)].

Usage and Packaging

Package	150 µg
Reconstitution	Add the volume of H2O the protein is lyophilized from to the vial of lyophilized powder

Reconstitution	Add the volume of H_2O the protein is lyophilized from 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 and Shipping Information

Storage	Store at ≤ - 20°C. Store working aliquots at ≤ - 20°C. Avoid repeated freezing and thawing. Delivery at ambient temperature is possible