Transglutaminase 4 from Human prostate, Recombinant

Cat. No. NATE-1736

Lot. No. (See product label)

Introduction

Description	This enzyme is based on clone IMAGp958A10818Q2. It is N-terminally fused to a hexahistidine-tag resulting in the encoded N-terminal amino acid sequence MHHHHHHAEELLL.... This enzyme is produced in E. coli and purified by ion metal chelating chromatography to more than 95 % purity.
Applications	The transglutaminase 4 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. The transglutaminase 4 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	E. coli
Appearance	White lyophilized solid.
Form	The transglutaminase is lyophilized from 10 mM Tris-HCl pH 8.1, 150 mM NaCl, 5 mM DTT, 1 mM EDTA. Sample contains maltodextrin.
EC Number	EC 2.3.2.13
CAS No.	80146-85-6
Molecular Weight	78 kDa
Purity	> 95 % (visually by SDS-PAGE)
Activity	> 30 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	100 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 in working aliquots. Repeated freezing and thawing is not recommended. Delivery is possible at ambient temperature.