Creative Enzymes®

Transglutaminase 7 from Human, Recombinant

Cat. No. NATE-1737

Lot. No. (See product label)

Introduction

Description Transglutaminase 7 is based on the TGM7-gene on plasmid pCRII-hTGz cl.14 (isolated by Daniel Aeschlimann), corrected by the insertion of a C at position 1169. It is N-terminally fused to a hexahistidine-tag.

Applications The transglutaminase 7 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. The transglutaminase 7 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 50 mM Tris-HCl pH 8.

EC Number EC 2.3.2.13

CAS No. 80146-85-6

Molecular Weight 81 kDa

Purity > 90 % (visually by SDS-PAGE)

Activity > 1000 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 250 µg

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 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