Creative Enzymes®

Biotinylated Transglutaminase from Human, Proenzyme (Zymogen)

Cat. No. NATE-1735

Lot. No. (See product label)

Introduction

Description	This enzyme belongs to the family of transferases, specifically those transferring phosphorus-containing groups (phosphotransferases) with a phosphate group as acceptor.
Applications	The transglutaminase 3 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. Biotinylated transglutaminase 3 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	Liquid
Form	The transglutaminase is formulated in 10 mM Sodium Phosphate pH 8.0, 15 mM NaCl. Sample contains 50% glycerol. Transglutaminase is a Ca2+-dependent enzyme.
EC Number	EC 2.3.2.13
CAS No.	80146-85-6
Molecular Weight	78 kDa
Purity	> 95 % (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	10 µl His6-rhTG3 (1 µg/µl) 35 µl 50 mM Tris-HCl pH 8 5 µl Dispase I (Roche) (0.2 µg/µl) Incubate for 20 min at 30 °C Add 10 mM Ca2+ to activate transglutaminase3.
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

Storage and Shipping Information

Storage	Store at -20 °C in working aliquots. Repeated freezing and thawing is not recommended.