

## 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  $\epsilon$ -( $\gamma$ -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; fibrinolygase; fibrin stabilizing factor; glutaminylpeptide  $\gamma$ -glutamyltransferase; polyamine transglutaminase; tissue transglutaminase; R-glutaminyl-peptide:amine  $\gamma$ -glutamyl transferase; protein-glutamine  $\gamma$ -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 Ca<sup>2+</sup>-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  $\mu$ l His6-rhTG3 (1  $\mu$ g/ $\mu$ l) 35  $\mu$ l 50 mM Tris-HCl pH 8 5  $\mu$ l Dispase I (Roche) (0.2  $\mu$ g/ $\mu$ l) Incubate for 20 min at 30 °C Add 10 mM Ca<sup>2+</sup> 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;  $\lambda_{ex}$  = 332 nm,  $\lambda_{em}$  = 500 nm; band filter = 5 nm; detector strength = 600 V; temperature = 37 °C, assay volume = 1 ml).

### Usage and Packaging

**Package** 100  $\mu$ g

### Storage and Shipping Information

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

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