

Transglutaminase 2 from Human tissue, Recombinant

Cat. No. NATE-1728

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

Transglutaminase 2 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. Transglutaminase 2 may also be used for immunoprecipitation.

Synonyms

transglutaminase; EC 2.3.2.13; 80146-85-6; transglutaminase; Factor XIIIa; fibrinolygase; 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 10 mM Tris-HCl pH 8.1, 150 mM NaCl, 1 mM EDTA, 5 mM DTT. Sample contains maltodextrin.

EC Number

EC 2.3.2.13

CAS No.

80146-85-6

Molecular Weight

78 kDa

Purity

> 90 % (visually by SDS-PAGE)

Activity

> 1500 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 Ca^{2+} 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; λ_{ex} = 332 nm, λ_{em} = 500 nm; band filter = 5 nm; detector strength = 600 V; temperature = 37°C, assay volume = 1 ml)].

Usage and Packaging

Package

250 μg ; 1mg

Reconstitution

Add the volume of water specified in the certificate of analysis under aliquotation to

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 stored frozen in working aliquots.

Storage and Shipping Information

Storage

Store working aliquots at $\leq -20^{\circ}\text{C}$. Avoid repeated freezing and thawing. Delivery is possible at ambient temperature.