

Transglutaminase from guinea pig liver, Recombinant

Cat. No. NATE-1247

Lot. No. (See product label)

Introduction

Description Transglutaminase from guinea pig liver consists of a single polypeptide chain of 691 amino acid residues. It has six potential glycosylation sites (Asn-X-Ser or Asn-X-Thr), but it is not glycosylated. The molecular mass is approximately 76.6 kDa. It is calcium dependent and has several calcium binding sites. The enzyme is inhibited by iodoacetamide and N-ethylmaleimide in the presence of calcium. It catalyzes the incorporation of small molecular weight amines into γ -glutamine sites of proteins. In the absence of small molecular weight amines, it catalyzes the cross linking of proteins that results in the formation of γ -glutamyl- ϵ -lysine side chain peptides. Liver transglutaminase is a nonzymogenic enzyme.

Applications Transglutaminase has been used in a study to improve quantifiable assays to fully characterize the role of transglutaminase in diseases such as Huntington's disease and Alzheimer's disease. Transglutaminase has also been used in a study to develop a nonradioactive dot blot assay for transglutaminase activity.

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

Product Information

Species Guinea pig liver

Source Sf9 cells

Form Lyophilized powder from 5.0 mM Tris, pH 7.5, 0.5 mM DTE and 1 mM CaCl₂

CAS No. 80146-85-6

Activity > 1.5 units/mg

Buffer Resuspend powder in 50 mM Tris, pH 7.6

Unit Definition One unit will catalyze the formation of 1.0 μ mole of hydroxamate per minute from N α -Z-Gln-Gly and hydroxylamine at pH 6.0 at 37 °C. (L-Glutamic acid γ -monohydroxamate is the standard.)

Storage and Shipping Information

Storage at -20°C