

Product Data Sheet

□ Cat # RP-389

Recombinant Human Tissue Transglutaminase

Size: □ 5 ug

Celiac disease is an enteropathy that is characterized by intestinal lesions of variable severity. Tissue-type transglutaminase (tTG) is believed to be the predominant autoantigen for celiac disease and the corresponding autoantibodies show higher sensitivity and specificity than anti-gliadin antibodies. Highly pure recombinant human tTG is now available to replace the traditionally used tTG fraction from guinea pig. Tissue-type transglutaminase antigens have been specifically modified for improved handling: exchange of an active site amino acid eliminates the protein cross-linking activity of the enzyme, while maintaining the native three-dimensional structure and the enzyme's secondary GTPase activity. This engineering assures reproducible properties of the antigen preparations through the absence of variable and ill-defined covalent aggregates of tTG antigen and host cell proteins

Source: *Sf9 insect cells*. Tissue Transglutaminase Human Recombinant produced in SF9 is a glycosylated, polypeptide chain having a molecular mass of 78,018 Dalton. tTG is expressed with a -6xHis tag and purified by proprietary chromatographic techniques. By point mutation of the active center the catalytic transglutaminase activity has been eliminated, resulting in increased stability during storage and coating t-TG is supplied at a concentration of 1mg/ml in 16mM HEPES buffer pH-8.0, 320mM NaCl, and 20% glycerol

Applications and Suggested Dilutions: 1. Binds IgA & IgG-type human auto-antibodies. 2. Standard ELISA test (checker-board analysis of positive/negative sera panels, immuno-dot test) Western-Blot with monoclonal anti-hexa-His-tag antibody. Greater than 95% as determined by SDS-PAGE. Users must optimize the appropriate concentration and conditions for each assay.

Coating concentration: 0.6-1.4 µg/ml (depending on the type of ELISA plate and coating buffer). Suitable for biotinylation and iodination.

Stability and Storage: Store at 4°C if entire vial will be used within 2-4weeks. Store, frozen at -20°C for longer periods of time. Avoid multiple freeze-thaw cycles. If supplied in powder then reconstitute it in 100 ul water for 1 mg/ml stock and store in liquid at 4oC for ~1 week or aliquots in suitable size and store at -20oC for long term storage.

Usage: This item is for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

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