# TGM2

# Recombinant Human TGM2/Tissue-type Transglutaminase Sf9 His

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| **Catalog No.** | CSI10688 | **Quantity:** | 5 µg |
| | CSI10689 | | 20 µg |
| | CSI10690 | | 1.0 mg |

**Alternate Names:** Protein-glutamine gamma-glutamyltransferase 2, EC 2.3.2.13, Tissue transglutaminase, TGase C, TGC, TG(C), Transglutaminase-2, TGase-H, TG2, TGM2.

**Description:** 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.
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.

**Concentration:** 1.2 mg/ml

**GeneID:** 7052

**Source:** Sf9 insect cells

**Molecular Mass:** 78,018 Dalton

**Formulation:** TGM2 is supplied in 16mM HEPES buffer pH-8.0 +320mM NaCl, and 20% glycerol.

**Purity:** > 95.0% as determined by SDS-PAGE analysis

**Endotoxin Level:** < 0.1 ng/µg of protein

**Immunological Functions:**
1. Binds IgA & IgG-type human auto-antibodies.
2. Standard ELISA test (checker-board analysis of positive/negative sera panels, immuno-dot test).

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

**Applications:** Western-Blot with monoclonal anti-hexa-His-tag antibody.

**Cell Sciences**®
480 Neponset Street
Bldg 12A
Canton, MA 02021

Toll Free: 888-769-1246
Phone: 781-828-0610
Fax: 781-828-0542

E-mail: info@cellsciences.com
Website: www.cellsciences.com

**Application Notes:** For Western Blot, use with monoclonal anti-hexa-His-tag antibody. For ELISA, use a working dilution of 0.6-1.4 µg/ml (depending on the type of ELISA plate and coating buffer). Binds IgA and IgG-type human auto-antibodies. Suitable for biotinylation and iodination. The optimal concentration should be determined by the user for each specific application.

**Storage & Stability:** Stable for 4 weeks at 2-4°C. For long term storage, aliquot and store at -20°C. **Avoid repeated freeze-thaw cycles**.

**NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.**

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