

# Tissue Transglutaminase (tTG; expressed in Baculovirus/Sf9)

## Antigen Specification

**Product Number: 15200**

**Description:**

Human tissue-type transglutaminase (tTG; Transglutaminase C, Transglutaminase H; EC 2.3.2.13). Recombinant antigen for in vitro research and manufacturing use only.

**Immunological function:**

Binds IgA- and IgG-type human auto-antibodies.

**Origin:**

Recombinant. Expressed by recombinant baculovirus (*Autographa californica* multiple nuclear polyhedrosis virus; AcMNPV) infection of *Spodoptera frugiperda* Sf9 insect cells.

**Expression construct:**

cDNA coding for the long splice isoform of the human tissue-type transglutaminase fused to a hexa-histidine purification tag. By point mutation of the active center the catalytic transglutaminase activity has been eliminated, resulting in increased stability during storage and coating.

**Biochemical tests:**

SDS-PAGE (purity > 95%); Western blot with i: anti-tTG autoantibody positive sample; ii: monoclonal anti-His-tag antibody.

**Calculated molecular weight:**

78 kDa

**Calculated isoelectric point:**

pH 5.3

**Immunological tests/Functionality:**

Standard ELISA test (checkerboard analysis of negative and positive (anti-endomysium positive celiac disease sera) samples); immunodot analyses with positive/negative samples.

**Recommended buffer/storage and handling conditions:**

Recommendations for storage buffer: neutral to slightly alkaline pH and 20% glycerol as cryoprotective agent. Storage conditions: -70°C or below. Repeated freeze/thaw cycles should be avoided.

**Coating concentration:**

0.6-1.4 µg/mL (depending on the type of ELISA plate and coating buffer). Suitable for labeling of functional groups. Remark: very diverse coating protocols exist in the literature; DIARECT recommends extensive testing in assay development.

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