

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 solid (ELISA; immunodot) and fluid-phase diagnostic assays.

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 and immunodot with a monoclonal anti-hexa-His-tag antibody.

Calculated molecular weight:

78,018 Dalton

Calculated isoelectric point:

pH 5.3

Immunological tests/Functionality:

Standard ELISA and immunodot test (checkerboard analysis of negative and positive (anti-endomysium positive celiac disease sera) sera panels).

Recommended buffer/storage and handling conditions:

Recommendations for storage buffer: ionic strength around 150 mM, neutral to slightly alkaline pH and 20 % glycerol as cryoprotective agent. Storage temperature: -70° to -80° C. Repeated freeze/thaw cycles should be avoided.

Coating concentration:

0.6-1.4 μ g/ml (depending on the type of ELISA plate and coating buffer). Suitable for biotinylation and iodination. Remark: very diverse coating protocols exist in the literature; DIARECT recommends extensive testing in assay development.

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