

Tissue Transglutaminase (tTG; expressed in *E. coli*)

Antigen Specification

Product Number: 14400

Description:

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

Immunological function:

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

Origin:

Recombinant. Expressed in *E. coli* bacterial 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 sera; ii: monoclonal anti-hexa-His-tag antibody; immunodot with anti-tTG autoantibody positive sera.

Calculated molecular weight:

78,018 Dalton

Calculated isoelectric point:

pH 5.3

Immunological tests/Functionality:

Standard ELISA test (checkerboard analysis of negative and positive (anti-endomysium positive celiac disease sera) sera panels); immunodot test with positive/negative 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 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; DIALECT recommends extensive testing in assay development.

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