

Recombinant Human Tissue Transglutaminase (tTG; Ec)

Antigen Specification

Product Number: 14400

Description:

Human tissue-type transglutaminase (t-TG; Transglutaminase C, Transglutaminase H; EC 2.3.2.13). Recombinant antigen for solid (ELISA; immuno-dot) and fluid-phase diagnostic assays.

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 and immuno-dot with i: monoclonal anti-hexa-His-tag antibody.

Calculated molecular weight:

78,018 Dalton

Calculated isoelectric point:

pH 5.3

Immunological tests/Functionality:

Standard ELISA and immuno-dot test (checker-board 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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- DIARECT AG • Bötzingen Str. 29 B • D-79111 Freiburg • Germany • Tel.: +49-(0)761-47979-0 • Fax: +49-(0)761-47979-29 •
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