
Lab Dept: Serology

Test Name: TISSUE TRANSGLUTAMINASE (tTG) IGG ANTIBODY

General Information

Lab Order Codes: TTGG

Synonyms: Transglutaminase, Ttg IgG

CPT Codes: 83516 – Immunoassay for analyte other than infectious agent antibody or infectious agent antigen, qualitative or semiquantitative; multiple step method

Test Includes: TTGG concentration reported as numeric Elia U/mL and interpreted as negative, positive, or equivocal.

Logistics

Test Indications: Tissue transglutaminase has been identified as the major autoantigen in celiac disease. IgA antibodies against tTG are highly disease specific serological markers for celiac disease and dermatitis herpetiformis. tTG IgG antibodies are less specific for these diseases but are helpful markers in patients with IgA deficiency.

Celiac disease is a life-long condition in which ingestion of gluten, the water insoluble wheat-gliadin and the prolamins in rye and barley, leads to chronic inflammation and damage of the small intestinal mucosa.

Also useful in monitoring adherence to gluten-free diet in patients with IgA deficiency.

Lab Testing Sections: Chemistry – Minneapolis Campus only

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 1 – 4 days, performed Monday - Friday

Special Instructions: N/A

Specimen

Specimen Type: Blood

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|-----------------------------|---|
| Container: | Red, marble or gold top tube (SST) |
| Draw Volume: | 1 mL blood |
| Processed Volume: | 0.3 mL (Minimum: 0.2 mL) serum |
| Collection: | Routine venipuncture |
| Special Processing: | Lab Staff: Centrifuge specimen, remove serum aliquot into a screw-top plastic vial. Store at refrigerated temperatures. Freeze at or below -20°C if not tested within 48 hours. |
| Patient Preparation: | None |
| Sample Rejection: | Specimens other than serum; mislabeled or unlabeled specimens |

Interpretive

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|--|-------------------------|-----------------------|
| Reference Range: | Range (All ages) | Interpretation |
| | <7 Elia U/mL | Negative |
| | 7 – 10 Elia U/mL | Equivocal |
| | >10 Elia U/mL | Positive |
| <p>Interpretation: TTGA and TTGG both >10 U/mL: Suggestive of Celiac disease</p> <p>TTG-IgG may be used to follow patients with Celiac disease who are IgA deficient. However, TTG-IgG alone is not sufficient to diagnose Celiac Disease. Please see Celiac Panel for diagnostic Celiac testing.</p> | | |

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| Critical Values: | N/A |
| Limitations: | <p>Affected individuals who have been on a gluten-free diet prior to testing may have a negative result.</p> <p>A negative tTG IgG test does not rule out celiac disease.</p> |
| Methodology: | Fluoroenzyme immunoassay |

References:

Phadia AB Elia Directions for Use, May 2008

CLSI document H18-A3 (Volume 24 Number 38): Procedures for the Handling and Processing of Blood Specimens; Approved Guidelines – Third Edition

Jacobs & DeMott Laboratory Test Handbook (2001) Lexi-Comp, Inc, Hudson, OH, 5th Edition

Updates:

10/14/2008: Reference range update. Units change from Units to U/mL.

11/2/2009: Testing moved from MML to testing internally at Children's.

2/9/2016: Update container types