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**Lab Dept:** Serology

**Test Name:** TISSUE TRANSGLUTAMINASE (tTG) IGA  
ANTIBODY REFLEX

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***General Information***

**Lab Order Codes:** TTGA

**Synonyms:** Transglutaminase, Ttg IgA

**CPT Codes:** 83516 – Immunoassay for analyte other than infectious agent antibody or infectious agent antigen, qualitative or semiquantitative; multiple step method  
82784 – Total IgA (when indicated)

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

Reflex: [Total IgA](#) will be performed at an additional charge when tTG-IgA is negative and falls below an undetectable level

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***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 dermatitis herpetiformis and celiac disease, or evaluating children with failure to thrive.

**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

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***Specimen***

**Specimen Type:** Blood

**Container:** SST (Red, marble or gold top tube)

**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

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***Interpretive***

**Reference Range:**

<b>Range (All ages)</b>	<b>Interpretation</b>
<7 Elia U/mL	Negative
7 – 10 Elia U/mL	Equivocal
>10 Elia U/mL	Positive
Reflexive Total IgA (mg/dL)	Please refer to <a href="#">IgA (Immunoglobulin A)</a> for reference ranges.
<b>Interpretation:</b> TTGA > 10 = Suggestive of Celiac disease	

**Critical Values:** N/A

**Limitations:** Affected individuals who have been on a gluten-free diet prior to testing may have a negative result.

A negative tTG IgA test does not rule out celiac disease. If serology tests are negative for celiac disease and the patient is symptomatic, a total IgA serum test is indicated to rule out IgA deficiency confounding the serologic diagnosis of celiac disease.

**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