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**Lab Dept:** Serology

**Test Name:** CELIAC CASCADE

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**General Information**

**Lab Order Codes:** CELCS

**Synonyms:** Celiac Disease Serology Cascade, Celiac Cascade Panel, Celiac Panel

**CPT Codes:** 82784: Total IgA

83516 x 1-4: Immunoassay for analyte other than infectious agent antibody or infectious agent antigen, qualitative or semiquantitative; multiple step method. (As appropriate, per testing algorithm)

**Test Includes:**

**Patients  $\geq 2$  years old:**

- Total IgA
  - If Total IgA is Normal or Elevated: TTg IgA is performed at an additional charge
    - If TTG IgA result is Equivocal, Deamidated Gliadin IgA will be performed at an additional charge
  - If Total IgA is low but  $\geq 6.0$ : TTg IgA, TTg IgG, and Deamidated Gliadin IgA and IgG are performed at additional charge
  - If Total IgA is deficient ( $< 6.0$ ): TTg IgG and Deamidated Gliadin IgG are performed at additional charge

**Patients  $< 2$  years old:**

- Total IgA
  - If Total IgA is detectable ( $\geq 6.0$ ): TTg IgA, TTg IgG, and Deamidated Gliadin IgA and IgG are performed at additional charge
  - If Total IgA is deficient ( $< 6.0$ ): TTg IgG and Deamidated Gliadin IgG are performed at additional charge

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**Logistics**

**Test Indications:** Useful for differential diagnosis of intestinal disorders such as celiac disease and Crohn's disease. May be useful for monitoring a gluten-free diet.

**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:** [Endomysial Antibody](#) is orderable separately and referred to Mayo Medical Laboratories for testing.

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***Specimen***

**Specimen Type:** Blood

**Container:** SST (Gold, marble or red) tube

**Draw Volume:** 1.5 mL (Minimum: 0.9 mL) blood

**Processed Volume:** 0.5 mL (Minimum: 0.3 mL) serum

**Collection:** Routine venipuncture

**Special Processing:** Lab Staff: Centrifuge specimen, remove serum aliquot and transfer 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:** Mislabeled or unlabeled specimen

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***Interpretive***

**Reference Range:**

Test Name (all ages)	Negative (Elia U/mL)	Equivocal (Elia U/mL)	Positive (Elia U/mL)
Total IgA (mg/dL)	Please refer to <a href="#">IgA (Immunoglobulin A)</a> for age based reference ranges		
Tissue transglutaminase IgA (TTGA)	<7	7 - 10	>10
Tissue transglutaminase IgG (TTGG)	<7	7 - 10	>10
Deamidated Gliadin antibody IgA (GGP)	<7	7 - 10	>10
Deamidated Gliadin antibody IgG (AGP)	<7	7 - 10	>10
<b>Interpretation:</b> TTGA >10 Elia U/mL: Suggestive of Celiac disease TTGA and TTGG both >10 U/mL: Suggestive of Celiac disease AGP >10 Elia U/mL or AGP and GLG >10 Elia U/mL and patient <7 years: Possible Celiac disease, recommend HLA, EMA or biopsy			

**Critical Values:** N/A

**Limitations:** N/A

**Methodology:** Total IgA: Immunoturbidimetric  
TTGA, TTGG, GGP, AGP: Fluorezyme immunoassay

**References:** Phadia AB Elia Directions for Use (August 2010)

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:** 1/9/2024: New panel