

Overview**Useful For**

Confirming a diagnosis of pemphigoid, pemphigus, epidermolysis bullosa acquisita, or bullous lupus erythematosus

Method Name

Detection of IgG Anti-Intercellular Substance (ICS) and Anti-Basement Membrane Zone (BMZ) Antibodies by Indirect Immunofluorescence Technique Using Rhesus Monkey Esophagus Substrate and Human NaCl Split-Skin Substrate

NY State Available

Yes

Specimen**Specimen Type**

Serum

Specimen Required

Container/Tube:

Preferred: Red top

Acceptable: Serum gel

Specimen Volume: 2 mL

Specimen Minimum Volume

0.5 mL

Reject Due To

| | |
|-----------------|--------|
| Gross hemolysis | OK |
| Gross lipemia | Reject |
| Gross icterus | OK |

Specimen Stability Information

| Specimen Type | Temperature | Time | Special Container |
|---------------|--------------------------|---------|-------------------|
| Serum | Refrigerated (preferred) | 14 days | |
| | Frozen | 30 days | |
| | Ambient | 14 days | |

Clinical and Interpretive**Clinical Information**

IgG anti-basement zone (BMZ) antibodies are produced by patients with pemphigoid. In most patients with bullous pemphigoid, serum contains IgG anti-BMZ antibodies, while in cicatricial pemphigoid circulating IgG anti-BMZ antibodies are found in a minority of cases. Sensitivity of detection of anti-BMZ antibodies is increased when serum is tested using sodium chloride (NaCl)-split human skin as substrate.

Circulating IgG anti-BMZ antibodies are also detected in patients with epidermolysis bullosa acquisita (EBA) and bullous eruption of lupus erythematosus.

IgG anti-cell surface (CS) antibodies are produced by patients with pemphigus. The titer of anti-CS antibodies generally correlates with disease activity of pemphigus.

Reference Values

Report includes presence and titer of circulating antibodies. If serum contains BMZ antibodies on split-skin substrate, patterns will be reported as: 1) epidermal pattern, consistent with pemphigoid or 2) dermal pattern, consistent with epidermolysis bullosa acquisita.

Negative in normal individuals

Interpretation

Indirect immunofluorescence (IF) testing may be diagnostic when histologic or direct IF studies are only suggestive, nonspecific, or negative.

Anti-cell surface (CS) antibodies correlate with a diagnosis of pemphigus.

Anti-basement zone (BMZ) antibodies correlate with a diagnosis of bullous pemphigoid, cicatricial pemphigoid, epidermolysis bullosa acquisita (EBA), or bullous eruption of lupus erythematosus (LE).

If serum contains anti-BMZ antibodies, the pattern of fluorescence on sodium chloride(NaCl)-split skin substrate helps distinguish pemphigoid from EBA and bullous LE. Staining of the roof (epidermal side) or both epidermal and dermal sides of NaCl-split skin correlates with the diagnosis of pemphigoid, while fluorescence localized only to the dermal side of the split-skin substrate correlates with either EBA or bullous LE.

Cautions

Results should be interpreted in conjunction with clinical information, histologic pattern, and results of direct immunofluorescence (IF) study. In particular, the finding of low titer (< or =1:80) anti-CS antibodies should not be used alone (ie, without histologic or direct IF support) to confirm a diagnosis of pemphigus.

Clinical Reference

1. Immunopathology of the Skin. Edited by EH Beutner, TP Chorzelski, V Kumar. Third edition. New York, Wiley Medical Publication, 1987
2. Gammon WR, Briggaman RA, Inman AO 3rd, et al: Differentiating anti-lamina lucida and anti-sublamina densa anti-BMZ antibodies by indirect immunofluorescence on 1.0 M sodium chloride-separated skin. J Invest Dermatol 1984;82:139-144

Performance

Method Description

Frozen sections of rhesus monkey esophagus and sodium chloride-split human skin are overlaid with dilutions of patient's serum, incubated, covered with fluorescein-conjugated IgG antiserum, and interpreted with a fluorescence microscope.

PDF Report

No

Day(s) Performed

Monday through Friday

Report Available

2 to 7 days

Specimen Retention Time

14 days

Performing Laboratory Location

Rochester

Fees and Codes**Fees**

- Authorized users can sign in to [Test Prices](#) for detailed fee information.
- Clients without access to Test Prices can contact [Customer Service](#) 24 hours a day, seven days a week.
- Prospective clients should contact their Regional Manager. For assistance, contact [Customer Service](#).

Test Classification

This test was developed, and its performance characteristics determined by Mayo Clinic in a manner consistent with CLIA requirements. This test has not been cleared or approved by the US Food and Drug Administration.

CPT Code Information

88346

88350

LOINC® Information

| Test ID | Test Order Name | Order LOINC Value |
|---------|---------------------------------|-------------------|
| CIFS | Cutaneous Immflour. Ab, S (IgG) | In Process |

| Result ID | Test Result Name | Result LOINC Value |
|-----------|-----------------------|--------------------|
| 21539 | Cell Surface Ab IgG | 21352-0 |
| 21540 | Basement Membrane IgG | 29994-1 |
| 21541 | Monkey Esophagus IgG | 66881-4 |
| 21542 | Human Split Skin IgG | 45178-1 |
| 21638 | Other | 48767-8 |