

Client: Example Client ABC123  
123 Test Drive

UNITED STATES

Physician: Doctor, Example

Patient: Patient, Example

DOB

Sex:

Patient Identifiers: 01234567890ABCD, 012345

Visit Number (FIN): 01234567890ABCD

Collection Date: 01/01/2017 12:34

## Basement Membrane Zone (Epithelial) Antibodies, IgG by IIF

ARUP test code 0092056

Epithelial BMZ Ab, IgG

### See Note

#### CLINICAL INFORMATION

Urticaria, blisters, and mouth lesions sporadically for 6 months

#### Specimen Details

S22-IP0000526 - Serum; Collected: ; Received:

#### DIAGNOSTIC INTERPRETATION

Negative IgG basement membrane zone antibodies by indirect immunofluorescence

(See Results and Comments including further testing recommendations)

#### RESULTS

##### Indirect Immunofluorescence (IIF)

##### Basement Membrane Zone (BMZ) IgG Antibodies

IgG: Negative, monkey esophagus substrate  
Negative, human split skin substrate

##### Reference Range:

Negative - Titer less than 1:10

Borderline - Titer 1:10

Positive (H) - Titer greater than 1:10

##### Localization Pattern on Human BMZ Split Skin:

Epidermal (roof) or combined epidermal-dermal (roof and floor) IgG and/or IgG4 BMZ antibodies = pemphigoid (including pemphigoid gestationis, bullous pemphigoid, mucous membrane pemphigoid)

Dermal (floor) IgG and/or IgG4 BMZ antibodies = epidermolysis bullosa acquisita or bullous lupus erythematosus or anti-laminin-332 pemphigoid or anti-p200 (laminin gamma-1) pemphigoid or another rare pemphigoid subtype

(H) = high/positive

#### COMMENTS

Specific

H=High, L=Low, \*=Abnormal, C=Critical

Unless otherwise indicated, testing performed at:

ARUP LABORATORIES | 800-522-2787 | aruplab.com  
500 Chipeta Way, Salt Lake City, UT 84108-1221  
Jonathan R. Genzen, MD, PhD, Laboratory Director

Patient: Patient, Example  
ARUP Accession: 22-173-114646  
Patient Identifiers: 01234567890ABCD, 012345  
Visit Number (FIN): 01234567890ABCD  
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The negative IgG basement membrane zone antibody reactivity by indirect immunofluorescence is against the diagnoses of pemphigoid and epidermolysis bullosa acquisita.

In certain patients with pemphigoid, IgG BP180 and/or IgG BP230 antibody levels by ELISAs may be more sensitive diagnostic markers than indirect immunofluorescence, and, in certain patients with epidermolysis bullosa acquisita, the IgG type VII collagen antibody level by ELISA may be a more sensitive diagnostic marker than indirect immunofluorescence. Another consideration is that patients with linear IgA disease may show clinical similarity to patients with pemphigoid and epidermolysis bullosa acquisita. Clinical correlation is needed, including with direct immunofluorescence findings on a biopsy specimen and treatment status.

To further evaluate for pemphigoid and/or epidermolysis bullosa acquisita and/or linear IgA disease, additional testing is recommended and can be performed on this serum specimen by contacting ARUP Client Services at 1-800-242-2787, option 2, with add-on test request(s) for:

- Bullous Pemphigoid (BP180 and BP230) Antibodies, IgG by ELISA (ARUP test number 0092566),
- Collagen Type VII Antibody, IgG by ELISA (ARUP test number 2010905), and/or
- Basement Membrane Zone (Epithelial) Antibodies, IgA by IIF (ARUP test number 0092057).

Monitoring antibody profiles and levels may aid in assessing disease expression and activity, particularly for persisting, progressing, or changing disease.

#### General

Approximately 80 percent of patients with bullous pemphigoid and epidermolysis bullosa acquisita have positive IgG antibodies to basement membrane zone components in their sera. Approximately 50 percent of patients with mucous membrane/cicatricial pemphigoid demonstrate antibodies to basement membrane zone components. The pattern of antibody localization on split skin substrate distinguishes the diseases.

Major molecular structures in the basement membrane zone to which IgG pemphigoid antibodies bind have been identified and termed "BP180" for a 180 kDa bullous pemphigoid antigen and "BP230" for a 230 kDa bullous pemphigoid antigen. Type VII collagen is a component of anchoring fibrils within epithelial basement membrane zone (skin and mucous membranes) and is an antigenic target of IgG autoantibodies in patients with epidermolysis bullosa acquisita and in a subset of patients with bullous lupus erythematosus.

#### TESTING METHODS

##### Indirect Immunofluorescence (IIF)

##### IgG Epithelial Basement Membrane Zone (BMZ) Antibodies

Patient serum is progressively diluted beginning at 1:5 in three two-fold screening dilutions, layered on sections of human skin split at the basement membrane zone and monkey esophagus substrates, and reacted with fluorescein isothiocyanate (FITC)-conjugated antibody to IgG. When positive, the serum is further diluted in two-fold reductions to the limiting dilution of antibody detection or to a maximum dilution of 1:40,960. The limiting-dilution, end-point titer is reported for each substrate, and the pattern of staining on split skin substrate also is reported. This indirect immunofluorescence testing was developed and its performance characteristics determined by the Immunodermatology Laboratory at the University of Utah. It has

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not been cleared or approved by the FDA (US Food and Drug Administration). FDA clearance or approval currently is not required for this testing performed in a CLIA-certified laboratory (Clinical Laboratory Improvement Amendments) and intended for clinical use. [Indirect immunofluorescence, one antibody on two substrates (IIF X 2)]

Electronically signed by \_\_\_\_\_, MD, on \_\_\_\_\_  
at \_\_\_\_\_  
Performed At: \_\_\_\_\_

Medical Director: \_\_\_\_\_, MD  
CLIA Number: \_\_\_\_\_

VERIFIED/REPORTED DATES

Procedure	Accession	Collected	Received	Verified/Reported
Epithelial BMZ Ab, IgG	22-173-114646			

END OF CHART

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