

Client: Example Client ABC123
123 Test Drive
Salt Lake City, UT 84108
UNITED STATES

Physician: Doctor, Example

Patient: Patient, Example

DOB: 3/15/1955
Gender: Female
Patient Identifiers: 01234567890ABCD, 012345
Visit Number (FIN): 01234567890ABCD
Collection Date: 01/01/2017 12:34

Epithelial Basement Membrane Zone Antibody IgG

ARUP test code 0092056

Epithelial BMZ Ab, IgG

See Note

IMMUNODERMATOLOGY REPORT

Specimen(s):
1. Serum specimen

Clinical/Diagnostic Information:
No clinical information provided.

DIAGNOSTIC INTERPRETATION

Probable pemphigoid

(See Results and Comments including additional test recommendation)

RESULTS

Indirect Immunofluorescence

Basement Membrane Zone (BMZ) IgG and IgG4 Antibodies

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

IgG4: Negative, monkey esophagus substrate
Positive, epidermal pattern, titer 1:20 (H),
human split skin substrate

Reference Range:

Positive - Titer greater than 1:10
Borderline - Titer 1:10
Negative - Titer less than 1:10

Pattern on Human BMZ Split Skin:

IgG epidermal or epidermal-dermal combined basement
membrane zone antibody pattern = pemphigoid

IgG dermal basement membrane zone antibody pattern =
epidermolysis bullosa acquisita

(H = high/positive)

COMMENTS

Specific

The positive IgG4 basement membrane zone antibody localization
on split skin substrate in an epidermal pattern by indirect

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
Tracy I. George, MD, Laboratory Director

Patient: Patient, Example
ARUP Accession: 19-206-401505
Patient Identifiers: 01234567890ABCD, 012345
Visit Number (FIN): 01234567890ABCD
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immunofluorescence supports the diagnosis of pemphigoid.

IgG BP 180 and/or IgG BP 230 antibody levels by ELISAs are sensitive diagnostic markers in pemphigoid, and IgG BP 180 antibody levels by ELISA may correlate with disease activity in pemphigoid. To further define the immunopathological profile in this patient with consideration for monitoring disease activity, recommend ELISA testing for IgG BP 180 and IgG BP 230 antibodies.

Other considerations are that co-expression of IgG and IgA basement membrane zone antibodies may develop in patients with pemphigoid, which may have implications for disease severity and treatment approach. Also, in patients with epidermolysis bullosa acquisita and in a subset of patients with bullous lupus erythematosus, the IgG type VII collagen antibody level by ELISA may be a more sensitive diagnostic marker than basement membrane zone antibody reactivity by indirect immunofluorescence. If clinically indicated to further evaluate the immunopathological profile with respect to basement membrane zone antibodies, additional testing may be performed on this specimen by add-on test request through ARUP Client Services at 1-800-242-2787 option 2, for:

- Bullous Pemphigoid Antigens, BP 180 and BP 230, Antibodies (ARUP test number 0092566) and/or
- IgG Collagen Type VII antibodies by ELISA (ARUP test number 2010905) and/or
- IgA Epithelial Basement Membrane Zone Antibody (0092057).

Clinical correlation is needed, including correlation with direct immunofluorescence on a biopsy specimen and treatment status, with consideration for continued monitoring of antibody profiles by indirect immunofluorescence as well as antibody levels by ELISAs to aid in assessing disease expression and activity.

General

Approximately 80 percent of patients with bullous pemphigoid, epidermolysis bullosa acquisita, and linear IgA bullous dermatosis have positive antibodies to basement membrane zone components in their sera. Approximately 20 percent of patients with mucous membrane pemphigoid have positive antibodies to basement membrane zone components in their sera. The pattern of staining on split skin specifies disease. IgG4 subclass reactivity may be more sensitive than IgG in some patients with immunobullous diseases.

TESTING METHODS

Indirect Immunofluorescence

Basement Membrane Zone (BMZ) IgG and IgG4 Antibodies

The patients serum is progressively diluted beginning at 1:5 in two-fold dilutions, layered on sections of monkey esophagus substrate and human skin split at the basement membrane zone substrate, and stained with fluorescein-conjugated anti-IgG using Analyte Specific Reagents (ASRs). Three screening dilutions of serum are tested and, 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. Fluorescein-conjugated anti-IgG4 also is tested to increase test sensitivity (maximum serum dilution of 1:20). These tests were developed and their performance characteristics determined by the Immunodermatology Laboratory at the University of Utah. They have not been cleared or approved by the U.S. Food and Drug Administration. ASRs are used in many laboratory tests necessary for standard medical care and generally do not require FDA approval. These tests should not be regarded as investigational or for research only.

[Immunofluorescence studies, two antibodies on two substrates]

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4848

██████████, MD
Immunodermatologist
Electronically signed 7/28/2019 12:37:14PM
Performed at: ARUP - University Hospital Laboratory 50 N.
Medical Drive Salt Lake City UT 84132

VERIFIED/REPORTED DATES

Procedure	Accession	Collected	Received	Verified/Reported
Epithelial BMZ Ab, IgG	19-206-401505	7/18/2019 11:38:00 AM	7/26/2019 8:07:13 AM	7/29/2019 5:22:00 PM

END OF CHART

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

Unless otherwise indicated, testing performed at: