

Client: ARUP Example Report Only  
500 Chipeta Way  
Salt Lake City, UT 84108  
UNITED STATES

Physician: TEST, TEST

**Patient: PATIENT, NEG TEST**

**DOB:** 1/1/1950  
**Sex:** Female  
**Patient Identifiers:** 39701  
**Visit Number (FIN):** 40024  
**Collection Date:** 6/22/2022 14:15

**Bullous Pemphigoid (BP180 and BP230) Antibodies, IgG by ELISA**

ARUP test code 0092566

**Bullous Pemphigoid Antigens, IgG**

See Note

CLINICAL INFORMATION

Ecematous patches and pruritus for 6 weeks, unresponsive to topical therapy.

Specimen Details

S22-IP0000531 - Serum; Collected: 6/22/2022; Received: 6/22/2022

DIAGNOSTIC INTERPRETATION

Normal IgG Bullous Pemphigoid Antigens, BP180 and BP230, antibody levels by ELISAs

(See Results and Comments including further testing recommendations)

RESULTS

Enzyme-Linked Immunosorbent Assay (ELISA)

Bullous Pemphigoid (BP)180 and BP230 IgG Antibodies

IgG BP180 antibody level: 2 U/mL

Reference Range:

Normal (negative) = Less than 9 U/mL  
Increased (H) (positive) = 9 U/mL and greater

IgG BP230 antibody level: 1 U/mL

Reference Range:

Normal (negative) = Less than 9 U/mL  
Increased (H) (positive) = 9 U/mL and greater

(H) = high/positive

U = antibody level in ELISA units

COMMENTS

Specific

Patients with pemphigoid may show reactivity to multiple basement membrane zone components other than the BP180 and BP230 epitopes displayed in the tested ELISAs; therefore, these normal results do not rule out a diagnosis of pemphigoid. These results also do not rule out treated or evolving pemphigoid or other

**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, NEG TEST  
ARUP Accession: 22-173-114016  
Patient Identifiers: 39701  
Visit Number (FIN): 40024  
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immunobullous diseases. Clinical correlation is needed including direct immunofluorescence findings on a biopsy specimen and treatment status.

Serum testing for IgG and IgA basement membrane zone antibodies or, more broadly for IgG and IgA basement membrane zone and cell surface antibodies by indirect immunofluorescence and additional ELISAs can provide further immunopathological/diagnostic information. Correlation with additional testing is recommended and may 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:

Basement membrane zone antibody-associated diseases (pemphigoid and pemphigoid variants, epidermolysis bullosa acquisita, and linear IgA disease including linear IgA bullous dermatosis) with

- Basement Membrane Zone (Epithelial) Antibodies, IgG by IIF (ARUP test number 0092056),
- Basement Membrane Zone (Epithelial) Antibodies, IgA by IIF (ARUP test number 0092057), and
- Collagen Type VII Antibody, IgG by ELISA (ARUP test number 2010905);

or

Basement membrane zone and cell surface antibody-associated diseases (pemphigoid and pemphigoid variants, epidermolysis bullosa acquisita, linear IgA disease including linear IgA bullous dermatosis, and pemphigus and pemphigus variants) with

- Basement Membrane Zone and Cell Surface (Epithelial) Antibodies,
- IgG and IgA by IIF (ARUP test number 0090299),
- Desmoglein 1 and Desmoglein 3 (Pemphigus) Antibodies, IgG by ELISA (ARUP test number 0090649), and
- Collagen Type VII Antibody, IgG by ELISA (ARUP test number 2010905).

Detection, patterns, and levels of diagnostic antibodies may fluctuate with disease manifestations. Monitoring antibody profiles by indirect immunofluorescence as well as antibody levels by ELISAs may aid in assessing disease expression and activity.

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General

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 (also known as bullous pemphigoid antigen 2, BPAG2, or type XVII collagen, COL17) and "BP230" for a 230 kDa bullous pemphigoid antigen (also known as bullous pemphigoid antigen 1, BPAG1). BP180 is a transmembrane component of the basement membrane zone with collagen-like domains; the non-collagenous 16A (NC16A) antigenic domain of BP180 has been identified as a main antigenic target. BP230 is in the hemidesmosomal plaque of basal cells in the epidermis. Serum levels of IgG BP180 and IgG BP230 antibodies are determined by enzyme-linked immunosorbent assays (ELISA), and serum levels of IgG BP180 antibodies may correlate with disease activity in pemphigoid, diminishing with treatment response. Up to 7 percent of individuals who do not have pemphigoid, including patients with other immunobullous diseases, have increased levels of IgG BP180 and/or BP230 antibodies by ELISAs. Patients with pemphigoid may show reactivity to multiple basement membrane zone components in addition to or other than the BP180 and BP230 epitopes displayed in the tested ELISAs. 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.

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TESTING METHODS  
Enzyme-Linked Immunosorbent Assay (ELISA)

IgG BP180 and IgG BP230 serum antibody levels determined by U.S. Food and Drug Administration (FDA)-approved ELISAs (Mesacup, MBL BION). [Two ELISAs]

Electronically signed by Kristin M. Leiferman, MD, on 06/23/22 at 11:21 PM.  
Performed At: IMMUNODERMATOLOGY LABORATORY  
417 S. WAKARA WAY, SUITE 2151  
SALT LAKE CITY, UT 84108  
Medical Director: JOHN JOSEPH ZONE, MD  
CLIA Number: 46D0681916

EER Bullous Pemphigoid Antigens, IgG

See Note

Authorized individuals can access the ARUP Enhanced Report using the following link:



VERIFIED/REPORTED DATES

Procedure	Accession	Collected	Received	Verified/Reported
Bullous Pemphigoid Antigens, IgG	22-173-114016	6/22/2022 2:15:00 PM	6/22/2022 3:12:45 PM	6/23/2022 11:24:00 PM
EER Bullous Pemphigoid Antigens, IgG	22-173-114016	6/22/2022 2:15:00 PM	6/22/2022 3:12:45 PM	6/22/2022 3:20:00 PM

END OF CHART

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