Desmoglein 1 and Desmoglein 3 (Pemphigus) Antibodies, IgG by ELISA

Patient: [redacted]
DOB: [redacted] Age: [redacted] Sex: [redacted]
Patient Identifiers: [redacted]

Visit Number (FIN): [redacted]

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

Physician: TEST TEST

ARUP Test Code: 0090649

Collection Date: 10/13/2023
Received in lab: 10/13/2023
Completion Date: 10/23/2023

Immunodermatology Serum Test Report Navigation Guide

The Immunodermatology TESTING REPORT from the University of Utah follows "See Note" and is arranged as outlined below on the following pages:

CLINICAL INFORMATION
This content is provided by the ordering clinician and includes the reason for testing.

Specimen Details
This includes specimen identification with collected and received dates.

DIAGNOSTIC INTERPRETATION
This is a synopsis of key findings from the testing and their diagnostic relevance.

RESULTS
This section reports the discrete finding and value of each test component, along with the reference range.

COMMENTS
Specific

These comments provide an explanation of the test results as they relate to clinical considerations, and include reference to any concurrent and/or previous testing.

General

These comments summarize fundamental information about the test(s) and the component(s) assessed to aid in interpretation of their clinical applicability.

TESTING METHODS
The section lists the procedures performed, the test source(s), and the applicable laboratory developed test disclaimer(s).

TEST RESULTS SUMMARY CHART
A chart tabulating results of tests ordered for the patient by the same client is included if previous and/or concurrent testing has been performed.

ELISA RESULTS GRAPH
A graph of ELISA results also is included if previous and/or concurrent testing has been performed; the graph may be found on a subsequent page.

For testing algorithm and additional information, refer to:
arupconsult.com/content/immunobullous-skin-diseases-screening

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Jonathan R. Genzen, MD, PhD, Laboratory Director

Chart continues on following page(s)

HEALTH
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IMMUNODERMATOLOGY LABORATORY REPORT

Patient, [redacted]

Submitter

ARUP Sendouts

Desmoglein 1 and Desmoglein 3 (Pemphigus) Antibodies, IgG by ELISA (Final result)

TESTING REPORT follows "See Note"
See Note

CLINICAL INFORMATION
Scattered eroded, crusted, and scaling skin lesions on upper body. Presumptive diagnosis is pemphigus versus seborrheic dermatitis versus dermatophytosis.

Specimen Details
[redacted] - Serum; Collected: 10/13/2023; Received: 10/17/2023

DIAGNOSTIC INTERPRETATION

Consistent with pemphigus foliaceus

(See Results and Comments including further testing considerations)

RESULTS
Enzyme-Linked Immunosorbent Assay (ELISA)

Desmoglein (DSG) 1 and 3 IgG Antibodies

IgG desmoglein 1 antibody level: 95 U/mL (H)

Reference Range:

[redacted]
PCP: Unspecified

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            Normal (negative) = Less than 14 U/mL
     Borderline/Indeterminate = 14-20 U/mL
     Increased (H) (positive) = Greater than 20 U/mL

IgG desmoglein 3 antibody level:   3 U/mL

     Reference Range:
            Normal (negative) = Less than 9 U/mL
     Borderline/Indeterminate = 9-20 U/mL
     Increased (H) (positive) = Greater than 20 U/mL

    (H) = high/positive
    U = antibody level in ELISA units
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COMMENTS

Specific

The ELISA results, demonstrating an increased IgG desmoglein 1 antibody level and a normal IgG desmoglein 3 antibody level, support the diagnosis of pemphigus foliaceus. IgG cell surface (CS), also known as intercellular substance (ICS), antibodies by indirect immunofluorescence and IgG desmoglein antibody levels by ELISA correlate with disease activity in IgG pemphigus variants. Moreover, IgA CS/ICS antibodies, which characteristically are positive by indirect immunofluorescence in IgA pemphigus, may be observed in some pemphigus variants along with positive IgG CS/ICS antibodies.

If indicated to further evaluate the immunopathological profile, additional testing for serum cell surface antibodies by indirect immunofluorescence may be performed on this specimen by contacting ARUP Client Services, 1-800-242-2787, option 2, with add-on test request(s) for:

- Cell Surface (Epithelial) Antibodies, IgG by IIF (ARUP test number 0090266), with or without
- Pemphigus Antibodies, IgA by IIF (ARUP test number 0092106).

Clinical correlation is needed, including with treatment status, with consideration for monitoring antibody profiles by indirect immunofluorescence as well as antibody levels by ELISAs in assessing disease expression and activity, including response to therapy.

General

Pathogenic antibodies in serum from individuals with pemphigus bind to desmogleins, which are calcium-dependent adhesion molecules in epithelial desmosomes; such antibodies are detected by ELISA. Specific reactivity to the type of desmoglein may be helpful in determining pemphigus subtypes; IgG desmoglein 1 autoantibodies predominate in

patients with pemphigus foliaceus, and IgG desmoglein 3 autoantibodies, with or without accompanying desmoglein 1 autoantibodies, predominate in patients with pemphigus vulgaris. Autoantibody expression to both desmogleins 1 and 3 is associated with both skin and mucosal lesions, often with clinical features of pemphigus foliaceus and pemphigus vulgaris. ELISA testing for IgG desmoglein 1 and IgG desmoglein 3 antibodies is highly sensitive, with greater than 90 percent of patients with IgG-variant pemphigus showing increased levels of one or both antibodies. IgG desmoglein antibody levels also correlate with disease activity in pemphigus foliaceus and pemphigus vulgaris; however, patients with cell surface/intercellular substance antibody-positive pemphigus by indirect immunofluorescence can have normal results on ELISA testing with antibodies to different desmoglein 1 and/or desmoglein 3 epitopes than in the ELISAs or to other desmosomal adhesion molecules.

TESTING METHODS
Enzyme-Linked Immunosorbent Assays (ELISA)

IgG desmoglein 1 and IgG desmoglein 3 serum antibody levels determined by U.S. Food and Drug Administration (FDA)-approved ELISAs (Mesacup, MBL BION). [Two ELISAs]

Electronically signed by [redacted] on 10/23/23 at 10:33 PM.

Resulting Laboratory

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