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

Physician: Doctor, Example

Patient: Patient, Example

DOB	8/28/1970
Gender:	Male
Patient Identifiers:	01234567890ABCD, 012345
Visit Number (FIN):	01234567890ABCD
Collection Date:	01/01/2017 12:34

Pemphigus Antibody Panel - Epithelial Cell Surface Antibodies and Desmoglein 1 and Desmoglein 3 Antibodies, IgG

ARUP test code 0090650

Pemphigus Antibody Panel, IgG

See Note

IMMUNODERMATOLOGY REPORT

Specimen(s):
1. Serum specimen

Clinical/Diagnostic Information:
No clinical information provided.

DIAGNOSTIC INTERPRETATION

Negative/normal IgG Pemphigus Antibody Panel

(See Results and Comments)

RESULTS
Indirect Immunofluorescence

Cell Surface IgG Antibodies

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

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

(H = high/positive)

Enzyme Linked Immunosorbent Assay (ELISA)

Desmoglein (DSG) 1 and 3 IgG Antibodies

IgG desmoglein 1 antibodies: 1 unit

Reference Range:
Positive (H) = Greater than 20 units
Borderline/indeterminate = 14-20 units
Negative = Less than 14 units

IgG desmoglein 3 antibodies: 1 unit

Reference Range:
Positive (H) = Greater than 20 units
Borderline/indeterminate = 9-20 units
Negative = Less than 9 units

(H = high/increased; units = units/mL serum)

COMMENTS
Specific

These negative/normal results for IgG cell surface antibodies by indirect immunofluorescence and ELISA testing are against, but do not rule out, the diagnosis of active pemphigus vulgaris, pemphigus foliaceus, or other IgG pemphigus variants.

Detection and levels of diagnostic antibodies may fluctuate over time with disease expression. Clinical correlation is needed with consideration for monitoring antibody profiles and levels with persistent or progressive disease activity.

General

Greater than 80 percent of patients with pemphigus have positive epithelial cell surface antibodies in their sera identified by indirect immunofluorescence. Serum antibody titers correlate with disease activity. Cell surface antibodies are implicated in the pathophysiology of pemphigus and are not typically detected in normal individuals, in patients with other diseases or in patients with pemphigus whose disease activity is minimal and/or under therapeutic control.

Antibodies in serum from individuals with pemphigus bind to desmogleins, which are calcium-dependent adhesion molecules in cell surface desmosomes; such antibodies are detected by enzyme linked immunosorbent assay (ELISA) testing. 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. Overlapping expression with autoantibodies to both desmogleins 1 and 3 typically is associated clinically with both mucosal and skin lesions. ELISA testing for IgG desmoglein 1 and IgG desmoglein 3 antibodies is highly sensitive, with greater than 90 percent of pemphigus patients showing increased levels of one or both antibodies. Desmoglein antibodies are not increased in normal individuals. IgG desmoglein levels by ELISA testing also correlate with disease activity.

TESTING METHODS
Indirect Immunofluorescence

Cell Surface IgG Antibodies

The patients serum is progressively diluted in calcium-containing buffer beginning at 1:10 in three two-fold screening dilutions, layered on sections of intact normal human skin and monkey esophagus substrates, and stained with fluorescein-conjugated anti-IgG using Analyte Specific Reagents (ASRs). 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. 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, one antibody on two substrates]

Enzyme Linked Immunosorbent Assay (ELISA)

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

Kristin M Leiferman, MD
Immunodermatologist
Electronically signed 5/25/2017 12:35:57AM

H – high L – low * – abnormal C – critical

Performed at: ARUP - University Hospital Laboratory 50 N. Medical Drive Salt Lake City UT 84132

EER Pemphigus Antibody Panel, IgG	See Note Access ARUP Enhanced Report using either link below: -Direct access: -Enter Username, Password: https://erpt.aruplab.com Username: Password: Performed at: ARUP - University Hospital Laboratory 50 N. Medical Drive Salt Lake City UT 84132

VERIFIED/REPORTED DATES

Procedure	Accession	Collected	Received	Verified/Reported
Pemphigus Antibody Panel, IgG	17-141-104917	5/21/2017 6:13:00 AM	5/23/2017 10:17:14 AM	5/25/2017 3:28:00 PM
EER Pemphigus Antibody Panel, IgG	17-141-104917	5/21/2017 6:13:00 AM	5/23/2017 10:17:14 AM	5/25/2017 3:28:00 PM

END OF CHART