

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

Physician: Doctor, Example

**Patient: Patient, Example**

**DOB:** 12/31/1986  
**Gender:** Female  
**Patient Identifiers:** 01234567890ABCD, 012345  
**Visit Number (FIN):** 01234567890ABCD  
**Collection Date:** 00/00/0000 00:00

**Desmoglein 1 and Desmoglein 3 (Pemphigus) Antibodies, IgG by ELISA**  
ARUP test code 0090649

EER Desmoglein 1 and 3 Antibodies, IgG

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

[REDACTED]

Desmoglein 1 and 3 Antibodies, IgG

See Note  
CLINICAL INFORMATION  
Mouth lesions and patchy crusted skin lesions for months, rule  
out pemphigus.

Specimen Details  
[REDACTED] - ; Collected: 11/1/2023; Received: 11/1/2023

DIAGNOSTIC INTERPRETATION  
Normal IgG desmoglein 1 and IgG desmoglein 3 antibody levels by  
ELISAS  
(See Results and Comments including further testing  
recommendations)

RESULTS  
Enzyme-Linked Immunosorbent Assay (ELISA)  
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Desmoglein (DSG) 1 and 3 IgG Antibodies  
IgG desmoglein 1 antibody level: 5 U/mL  
Reference Range:  
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: 2 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

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

## COMMENTS

## Specific

These normal ELISA results for IgG desmoglein 1 and IgG desmoglein 3 antibodies do not provide support for, but do not rule out, the diagnosis of pemphigus foliaceus or pemphigus vulgaris. The results do not rule out evolving or treated pemphigus, pemphigus with antibodies to desmoglein epitopes that are not displayed in the tested ELISAs, non-desmoglein antibody pemphigus, or other immunobullous diseases including IgA pemphigus or pemphigoid and variants, bullous pemphigoid, mucous membrane pemphigoid, epidermolysis bullosa acquisita or linear IgA disease

To further evaluate the immunopathological profile with respect to pemphigus cell surface (CS), also known as intercellular substance (ICS), antibodies, correlation with additional testing for IgG and IgA CS/ICS antibodies by indirect immunofluorescence is recommended can be performed on this specimen by contacting ARUP Client Services at 1-800-242-2787, option 2, with add-on test request(s) for:

- Cell Surface (Epithelial) Antibodies, IgG by IIF (ARUP test number 0090266); and/or
- Pemphigus Antibodies, IgA by IIF (ARUP test number 0092106)

And/or for basement membrane zone (pemphigoid, epidermolysis bullosa acquisita, linear IgA disease) antibodies with:

- Basement Membrane Zone Antibody Panel (ARUP test number 3001410).

Detection, levels, and patterns of diagnostic antibodies may fluctuate with disease manifestations. Clinical correlation is needed, including with direct immunofluorescence findings on a biopsy specimen and treatment status, with consideration for monitoring serum antibody profiles by indirect immunofluorescence as well as antibody levels by ELISAs to aid in assessing disease expression and activity.

## General

Pathogenic antibodies in serum from patients with pemphigus bind to desmogleins, calcium-dependent adhesion molecules in cell surface desmosomes; such antibodies are detected by enzyme-linked immunosorbent assay (ELISA). Specific reactivity to the type of desmoglein may be helpful in determining pemphigus subtypes; the IgG desmoglein 1 antibody level is increased in patients with pemphigus foliaceus, and the IgG desmoglein 3 antibody level, with or without an increased IgG desmoglein 1 antibody level, is predominantly increased in patients with pemphigus vulgaris. Overlapping expression with antibodies to both desmogleins 1 and 3 clinically is associated 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 patients with pemphigus showing increased levels of one or both antibodies, and IgG desmoglein antibody levels correlate with disease activity. However, patients with cell surface antibody-positive pemphigus by indirect immunofluorescence can have normal results on ELISA testing with cell surface antibodies to different desmoglein 1 and/or desmoglein 3 epitopes than displayed in tested ELISAs or to other adhesion molecules.

## TESTING METHODS

## Enzyme-Linked Immunosorbent Assay (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]

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



Electronically signed by [REDACTED] on 11/01/23 at 5:37 PM.  
Performed At: IMMUNODERMATOLOGY LABORATORY  
417 S. WAKARA WAY, SUITE 2151  
SALT LAKE CITY, UT 84108  
Medical Director: KRISTIN M. LEIFERMAN, MD  
CLIA Number: 46D0681916

VERIFIED/REPORTED DATES				
Procedure	Accession	Collected	Received	Verified/Reported
EER Desmoglein 1 and 3 Antibodies, IgG	23-305-108804	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Desmoglein 1 and 3 Antibodies, IgG	23-305-108804	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00

END OF CHART

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