Client: Example Client ABC123
123 Test Drive

UNITED STATES

Physician: Doctor, Example

Patient: Patient, Example
DOB
Sex:
Patient Identifiers: 01234567890ABCD, 012345
Visit Number (FIN): 01234567890ABCD
Collection Date:

Cell Surface (Epithelial) Antibodies, IgG by IIF

ARUP test code 0090266

Epithelial Cell Surface Ab IgG

See Note

CLINICAL INFORMATION
Scaley patches with erosions, mainly upper chest.

Specimen Details
S22-IP0000520 - Serum; Collected: ; Received:

DIAGNOSTIC INTERPRETATION

Negative IgG cell surface antibodies by indirect immunofluorescence

(See Results and Comments including further testing recommendations)

RESULTS
Indirect Immunofluorescence (IIF)

Cell Surface (CS)/Intercellular Substance (ICS) IgG Antibodies

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

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

(H) = high/positive

COMMENTS

Specific

The negative IgG cell surface (CS)/intercellular substance (ICS) antibody reactivity with both monkey esophagus substrate and intact human skin substrate by indirect immunofluorescence testing is against, but does not rule out, the diagnosis of pemphigus vulgaris, pemphigus foliaceus, or another IgG pemphigus variant. In certain patients with pemphigus foliaceus and pemphigus vulgaris, IgG desmoglein 1 and/or IgG desmoglein 3 antibody levels by ELISAs may be more sensitive diagnostic markers than indirect immunofluorescence.

IgG CS/ICS antibodies characteristically are positive by indirect immunofluorescence in IgG pemphigus variants; IgA

CS/ICS antibodies characteristically are positive in the rare IgA pemphigus variant and also may be observed in some pemphigus variants along with positive IgG CS/ICS antibodies. To further evaluate the immunopathological profile with respect to pemphigus antibodies, additional testing may be performed on this specimen by contacting ARUP Client Services at 1-800-242-2787, option 2, with add-on test request(s) for:
- Desmoglein 1 and Desmoglein 3 (Pemphigus) Antibodies, IgG by ELISA (ARUP test number 0090649),
- Pemphigus Antibodies, IgA by IIF (ARUP test number 0092106),

And/or for basement membrane zone (pemphigoid, epidermolysis bullosa acquisita, linear IgA disease) antibodies:
- 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 direct immunofluorescence findings on a biopsy specimen and treatment status. Monitoring serum antibody levels by ELISAs as well as serum antibody profiles by indirect immunofluorescence may aid in assessing disease expression and activity, particularly for persisting, progressing, or changing disease.

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. IgG CS/ICS antibody titers by indirect immunofluorescence and IgG desmoglein antibody levels by ELISA correlate with disease activity in pemphigus foliaceus and pemphigus vulgaris. Of note, cell surface reactivity by indirect immunofluorescence may be observed transiently and/or nonspecifically in normal individuals, and in patients with infections, drug reactions, and other mucocutaneous disorders. 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. Pathogenic antibodies in serum from patients with pemphigus bind to desmogleins, calcium-dependent adhesion molecules in cell surface desmosomes; such antibodies are detected by ELISAs. 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 features of both pemphigus foliaceus and pemphigus vulgaris with skin and mucosal lesions.

TESTING METHODS
Indirect Immunofluorescence (IIF)

IgG Epithelial Cell Surface (CS)/Intercellular Substance (ICS) Antibodies

Patient 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 reacted with fluorescein isothiocyanate (FITC)-conjugated antibody to IgG. 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. The limiting-dilution, end-point titer is reported for each substrate. This indirect immunofluorescence testing was developed and its performance characteristics determined by the Immunodermatology Laboratory at the University of Utah. It has not been cleared or approved by the FDA (US Food and Drug Administration). FDA clearance or approval currently is not required for this testing performed in a CLIA-certified laboratory (Clinical Laboratory Improvement Amendments) and intended for clinical use. [Indirect immunofluorescence, one antibody on two substrates (IIF X 2)]

Electronically signed by , MD, on
at .
Performed At:

Medical Director: , MD
CLIA Number:

VERIFIED/REPORTED DATES

Procedure	Accession	Collected	Received	Verified/Reported
Epithelial Cell Surface Ab IgG				

END OF CHART

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