Test Definition: RNP

RNP Ab, IgG, S

Overview

Useful For

Evaluating patients with signs and symptoms of a connective tissue disease in whom the test for antinuclear antibodies is positive

Testing for RNP antibodies is **not useful** in patients without demonstrable antinuclear antibodies.

Testing Algorithm

See Connective Tissue Disease Cascade (CTDC) in Special Instructions.

Special Instructions

- Connective Tissue Disease Cascade (CTDC)

Method Name

MultiplexFlowImmunoassay

NY State Available

Yes

Specimen

Specimen Type

Serum

Specimen Required

Container/Tube:

Preferred: Serum gel

Acceptable: Red top

Specimen Volume:0.5 mL

Specimen Minimum Volume

0.35 mL

Reject Due To

Gross hemolysis	Reject
Gross lipemia	Reject
Gross icterus	OK

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
Serum	Refrigerated (preferred)	21 days	

Specimen Type	Temperature	Time	Special Container
	Frozen	21 days	

Clinical and Interpretive

Clinical Information

RNP (also called nRNP and U1RNP) is a small nuclear ribonucleoprotein that contains 3 protein autoantigens (called A, C, and 68 kD). Sera that contain RNP antibodies react predominately with the A and 68-kD autoantigens. Antibodies to RNP occur in approximately 50% of patients with lupus erythematosus (LE) and in patients with other connective tissue diseases, notably mixed connective tissue disease (MCTD). MCTD is characterized by high levels of RNP antibodies without detectable Sm (Smith) or double-stranded DNA (dsDNA) antibodies. MCTD resembles LE but is not accompanied by renal involvement.(1,2)

RNP is 1 of 4 autoantigens commonly referred to as extractable nuclear antigens (ENA). The other ENAs are SS-A/Ro, SS-B/La, and Sm. Each ENA is composed of 1 or more proteins associated with small nuclear RNA species (snRNP) ranging in size from 80 to approximately 350 nucleotides. Antibodies to ENAs are common in patients with connective tissue diseases (systemic rheumatic diseases) including LE, MCTD, Sjogren syndrome, scleroderma (systemic sclerosis), and polymyositis/dermatomyositis.

See Connective Tissue Disease Cascade (CTDC) in Special Instructions.

Reference Values

<1.0 U (negative)

> or =1.0 U (positive)

Reference values apply to all ages.

Interpretation

A positive result for RNP antibodies is consistent with a connective tissue disease. Although strongly associated with connective tissue diseases, RNP antibodies are not considered a "marker" for any particular disease except in the following situation: when found in isolation (ie, dsDNA antibodies and Sm antibodies are not detectable), a positive result for RNP antibodies is consistent with the diagnosis of mixed connective tissue disease.

Cautions

No significant cautionary statements

Clinical Reference

1. Homburger H, Larsen S: Detection of specific antibodies. In Clinical Immunology: Principles and Practice. First edition. Edited by R Rich, T Fleisher, B Schwartz, et al. St. Louis, Mosby-Year Book, 1996, pp 2096-2109

2. Kotzin B, West S: Systemic lupus erythematosus. In Clinical Immunology Principles and Practice. Second edition. Edited by R Rich, T Fleisher, W Shearer, et al. St. Louis, Mosby-Year Book, 2001, pp 60.1-60.24

Performance

Method Description

Recombinant RNP-68 and RNP-A antigens are bound to polystyrene microspheres, which are impregnated with

fluorescent dyes to create a unique fluorescent signature. RNP antibodies, if present in diluted serum, bind to the RNP antigens on the microspheres. The microspheres are washed to remove extraneous serum proteins. Phycoerythrin (PE)-conjugated antihuman IgG antibody is then added to detect IgG anti-RNP bound to the microspheres. The microspheres are washed to remove unbound conjugate, and bound conjugate is detected by laser photometry. A primary laser reveals the fluorescent signature of each microsphere to distinguish it from microspheres that are labeled with other antigens, and a secondary laser reveals the level of PE fluorescence associated with each microsphere. Results are calculated by comparing the median fluorescence response for RNP microspheres to a 4-point calibration curve.(Package insert: Bioplex 2200 ANA Screen. Bio-Rad Laboratories, Hercules, CA 11/2011)

PDF Report

No

Day(s) and Time(s) Test Performed

Monday through Saturday; 4 p.m.

Analytic Time

1 day

Maximum Laboratory Time

2 days

Specimen Retention Time

14 days

Performing Laboratory Location

Rochester

Fees and Codes

Fees

- Authorized users can sign in to Test Prices for detailed fee information.
- Clients without access to Test Prices can contact Customer Service 24 hours a day, seven days a week.
- Prospective clients should contact their Regional Manager. For assistance, contact Customer Service.

Test Classification

This test has been cleared, approved or is exempt by the U.S. Food and Drug Administration and is used per manufacturer's instructions. Performance characteristics were verified by Mayo Clinic in a manner consistent with CLIA requirements.

CPT Code Information

86235

LOINC® Information

Test ID	Test Order Name	Order LOINC Value
RNP	RNP Ab, IgG, S	29958-6

Test Definition: RNP

RNP Ab, IgG, S

Result ID	Test Result Name	Result LOINC Value
RNP	RNP Ab, IgG, S	29958-6