

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

Physician: Doctor, Example

**Patient: Patient, Example**

**DOB:** 2/19/2013  
**Gender:** Female  
**Patient Identifiers:** 01234567890ABCD, 012345  
**Visit Number (FIN):** 01234567890ABCD  
**Collection Date:** 00/00/0000 00:00

**Streptococcus pneumoniae Antibodies, IgG (23 Serotypes)**

ARUP test code 2005779

Pn serotype 1 IgG (P13,P20,PNX,V15)	<0.05 ug/mL
Pn serotype 2 IgG (PNX)	<0.09 ug/mL
Pn serotype 3 IgG (P13,P20,PNX,V15)	<0.07 ug/mL
Pn serotype 4 IgG (P7,P13,P20,PNX,V15)	<0.02 ug/mL
Pn serotype 5 IgG (P13,P20,PNX,V15)	0.11 ug/mL
Pn serotype 6B IgG (P7,P13,P20,PNX,V15)	<0.02 ug/mL
Pn serotype 7F IgG (P13,P20,PNX,V15)	0.04 ug/mL
Pn serotype 8 IgG (P20,PNX)	<0.03 ug/mL
Pn serotype 9N IgG (PNX)	<0.05 ug/mL
Pn serotype 9V IgG (P7,P13,P20,PNX,V15)	<0.03 ug/mL
Pn serotype 10A IgG (P20,PNX)	0.06 ug/mL
Pn serotype 11A IgG (P20,PNX)	<0.02 ug/mL

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

Unless otherwise indicated, testing performed at:

Pn serotype 12F IgG (P20,PNX)	<0.04 ug/mL
Pn serotype 14 IgG (P7,P13,P20,PNX,V15)	0.04 ug/mL
Pn serotype 15B IgG (P20,PNX)	<0.10 ug/mL
Pn serotype 17F IgG (PNX)	<0.04 ug/mL
Pn serotype 18C IgG (P7,P13,P20,PNX,V15)	<0.05 ug/mL
Pn serotype 19A IgG (P13,P20,PNX,V15)	<0.15 ug/mL
Pn serotype 19F IgG (P7,P13,P20,PNX,V15)	<0.17 ug/mL
Pn serotype 20 IgG (PNX)	<0.04 ug/mL
Pn serotype 22F IgG (P20,PNX,V15)	<0.03 ug/mL
Pn serotype 23F IgG (P7,P13,P20,PNX,V15)	0.02 ug/mL
Pn serotype 33F IgG (P20,PNX,V15)	<0.07 ug/mL
Pn Serotype Interpretation	See Note

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Unless otherwise indicated, testing performed at:

ARUP LABORATORIES | 800-522-2787 | aruplab.com  
500 Chipeta Way, Salt Lake City, UT 84108-1221  
Jonathan R. Genzen, MD, PhD, Laboratory Director

Patient: Patient, Example  
ARUP Accession: 24-096-109421  
Patient Identifiers: 01234567890ABCD, 012345  
Visit Number (FIN): 01234567890ABCD  
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**INTERPRETIVE INFORMATION: Streptococcus pneumoniae Antibodies, IgG**

A pre- and postvaccination comparison is required to adequately assess the humoral immune response to the pure polysaccharide Pneumovax 23 (PNX) and/or the protein conjugated Prevnar 7 (P7), Prevnar 13 (P13), Prevnar 20 (P20), and Vaxneuvance (V15) Streptococcus pneumoniae vaccines. Prevacination samples should be collected prior to vaccine administration. Postvaccination samples should be obtained at least 4 weeks after immunization. Testing of postvaccination samples alone will provide only general immune status of the individual to various pneumococcal serotypes.

In the case of pure polysaccharide vaccine, indication of immune system competence is further delineated as an adequate response to at least 50 percent of the serotypes in the vaccine challenge for those 2-5 years of age and to at least 70 percent of the serotypes in the vaccine challenge for those 6-65 years of age. Individual immune response may vary based on age, past exposure, immunocompetence, and pneumococcal serotype.

Responder Status	Antibody Ratio
Nonresponder .....	Less than twofold increase and postvaccination concentration less than 1.3 ug/mL
Good responder .....	At least a twofold increase and/or a postvaccination concentration greater than or equal to 1.3 ug/mL

A response to 50-70 percent or more of the serotypes in the vaccine challenge is considered a normal humoral response. (Daly, 2014) Antibody concentration greater than 1.0-1.3 ug/mL is generally considered long-term protection. (Daly, 2015)

**References:**

1. Daly TM, Pickering JW, Zhang X, et al. Multilaboratory assessment of threshold versus fold-change algorithms for minimizing analytical variability in multiplexed pneumococcal IgG measurements. Clin Vaccine Immunol. 2014;21(7):982-988.
2. Daly TM, Hill HR. Use and clinical interpretation of pneumococcal antibody measurements in the evaluation of humoral immune function. Clin Vaccine Immunol. 2015;22(2):148-152.

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the U.S. Food and Drug Administration. This test was performed in a CLIA-certified laboratory and is intended for clinical purposes.

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

VERIFIED/REPORTED DATES

Procedure	Accession	Collected	Received	Verified/Reported
Pn serotype 1 IgG (P13,P20,PNX,V15)	24-096-109421	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Pn serotype 2 IgG (PNX)	24-096-109421	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Pn serotype 3 IgG (P13,P20,PNX,V15)	24-096-109421	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Pn serotype 4 IgG (P7,P13,P20,PNX,V15)	24-096-109421	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Pn serotype 5 IgG (P13,P20,PNX,V15)	24-096-109421	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Pn serotype 6B IgG (P7,P13,P20,PNX,V15)	24-096-109421	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Pn serotype 7F IgG (P13,P20,PNX,V15)	24-096-109421	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Pn serotype 8 IgG (P20,PNX)	24-096-109421	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Pn serotype 9N IgG (PNX)	24-096-109421	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Pn serotype 9V IgG (P7,P13,P20,PNX,V15)	24-096-109421	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Pn serotype 10A IgG (P20,PNX)	24-096-109421	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Pn serotype 11A IgG (P20,PNX)	24-096-109421	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Pn serotype 12F IgG (P20,PNX)	24-096-109421	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Pn serotype 14 IgG (P7,P13,P20,PNX,V15)	24-096-109421	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Pn serotype 15B IgG (P20,PNX)	24-096-109421	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Pn serotype 17F IgG (PNX)	24-096-109421	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Pn serotype 18C IgG (P7,P13,P20,PNX,V15)	24-096-109421	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Pn serotype 19A IgG (P13,P20,PNX,V15)	24-096-109421	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Pn serotype 19F IgG (P7,P13,P20,PNX,V15)	24-096-109421	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Pn serotype 20 IgG (PNX)	24-096-109421	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Pn serotype 22F IgG (P20,PNX,V15)	24-096-109421	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Pn serotype 23F IgG (P7,P13,P20,PNX,V15)	24-096-109421	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Pn serotype 33F IgG (P20,PNX,V15)	24-096-109421	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Pn Serotype Interpretation	24-096-109421	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00

END OF CHART

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