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**Overview****Useful For**

Detection of cold agglutinins in patients with suspected cold agglutinin disease

**Method Name**

Titration-Red Cell Agglutination at 4 Degrees C

**NY State Available**

Yes

**Specimen****Specimen Type**

Serum Red

**Ordering Guidance**

The cold agglutinins test is not specific for *Mycoplasma pneumoniae* and is not recommended to diagnose *M pneumoniae* infections. See MYCPN / *Mycoplasma pneumoniae* Antibodies, IgG and IgM, Serum.

**Specimen Required**

**Collection Container/Tube:** Red top

**Submission Container/Tube:** Aliquot tube

**Specimen Volume:** 4 mL

**Pediatric Volume:** 1 mL

**Collections Instructions:**

1. Use a warm pack to keep specimen at 37 degrees C prior to and after collecting.
2. Allow specimens to clot at 37 degrees C.
3. Centrifuge at 37 degrees C and separate serum from red cells immediately after blood clots, or within one hour of collection.
4. Do not refrigerate prior to separation of serum from red cells.

**Forms**

If not ordering electronically, complete, print, and send a [Benign Hematology Test Request Form](#) (T755) with the specimen.

**Specimen Minimum Volume**

1 mL

**Reject Due To**

All specimens will be evaluated at Mayo Clinic Laboratories for test suitability.

**Specimen Stability Information**

Specimen Type	Temperature	Time	Special Container
Serum Red	Refrigerated (preferred)		
	Ambient		
	Frozen		

**Clinical and Interpretive****Clinical Information**

The cold agglutinin titer test is to be used as a tool in the evaluation of suspected cold agglutinin syndrome. In this syndrome, cold agglutinins, usually IgM with anti-I specificity, attach to the patient's erythrocytes causing a variety of symptoms. Symptoms may include chronic anemia due to premature removal of the sensitized erythrocytes from circulation by hemolysis, to acrocyanosis of the ears, fingers, or toes due to local blood stasis in the skin capillaries.

**Reference Values**

<1:64

**Interpretation**

Patients with cold agglutinin syndrome usually exhibit a titer value greater than 1:512, with rare cases reportedly as low as 1:64.

Normal individuals often have low levels of cold agglutinins.

The test is not a direct measure of clinical significance and must be used in conjunction with other in vitro and in vivo parameters.

**Cautions**

Normal individuals may have low levels of cold agglutinins.

**Clinical Reference**

1. Petz LD, Garratty G: Acquired Immune Hemolytic Anemias. New York, Churchill Livingstone, 1980
2. Farratty G, Petz LD, Hoops JK: The correlation of cold agglutinin titrations in saline and albumin with haemolytic anaemia. Br J Haematol 1977;35:587-595

**Performance****Method Description**

The titer is determined by making serial doubling dilutions of the patient's serum in 0.9% saline. Group O indicator red cells are added and the serum-cell mixture is then incubated 20 minutes at 0 to 5 degrees C, and the titer end point range is determined.(Ellenhorn MJ, Weiner D: Variables in determination of cold hemagglutinins. Am J Clin

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Pathol 1953;23:1031-1039)

**PDF Report**

No

**Day(s) Performed**

Monday through Friday, Sunday

**Report Available**

1 to 3 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 US 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**

86157

**LOINC® Information**

Test ID	Test Order Name	Order LOINC Value
CATR	Cold Agglutinin Titer	14658-9

Result ID	Test Result Name	Result LOINC Value
CATR	Cold Agglutinin Titer	14658-9