Lab Dept: Chemistry

Test Name: CRYOGLOBULIN, PLASMA AND SERUM

**General Information**

Lab Order Codes: CRGL

Synonyms: Cryofibrinogen; Cryoprecipitates; Cryoprotein

CPT Codes: 82595 – Cryoglobulin, qualitative or semi quantitative
82585 – Cryofibrinogen
86334 - Immunofixation (if appropriate)

Test Includes: Quantitation and qualitative typing, precipitation at 1 degree centigrade.
Includes cryofibrinogen. If cryoglobulin has a result other than negative, Immunofixation will be performed at an additional charge. Positive cryoglobulins of ≥0.1 mL of precipitate will be typed once.

**Logistics**

Test Indications: Useful for evaluating patients with vasculitis, glomerulonephritis, lymphoproliferative disease. Cases of macroglobulinemia or myeloma in whom symptoms occur with cold exposure.

Lab Testing Sections: Chemistry - Sendouts

Referred to: Mayo Medical Laboratories (MML Test:CRGSP)

Phone Numbers: MIN Lab: 612-813-6280
STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 2 – 10 days, test set-up Monday – Friday.

Special Instructions: See Container and Collection. Requires both EDTA plasma and serum.

**Specimen**

Specimen Type: Blood

Container: Red top (no gel) tube and Lavender top (EDTA, no gel) tubes

*Note*: Both tubes are required. Serum is used for cryoglobulin and plasma is used for cryofibrinogen.
**Draw Volume:**
- Red top: 9 mL blood
- Lavender top: 1.5 mL blood

**Processed Volume:**
Minimum: 3 mL serum and 0.5 plasma

**Collection:**
Routine venipuncture. Keep both specimens warm (37°C Water Bath or Heel Warmer) and deliver to laboratory immediately. Mix lavender top tube by gentle inversion. The serum tube must clot at 37°C for 30 to 60 minutes before processing.

**Special Processing:**
- **Lab Staff:**
  - **Red top NO GEL** - Maintain the specimen at 37°C in a water bath until clotted. Allow specimen to clot for 30 to 60 minutes. If the specimen has not been maintained at 37°C from the time of collection, allow the specimen to clot in 37°C water bath for 3 hours. Centrifuge at 37°C. Remove serum and aliquot into a plastic tube and store in refrigerator. Label specimen as serum sample. Ship at refrigerated temperatures.
  - **Lavender top NO GEL** - Maintain the specimen at 37°C including centrifugation. Remove plasma aliquot into a screw-capped round bottom plastic vial. Label as plasma sample. Store and ship at refrigerated temperatures.

**Patient Preparation:**
None

**Sample Rejection:**
Not maintained at 37°C prior to processing or gross hemolysis; mislabeled or unlabeled specimens; specimens collected in gel tubes; gross hemolysis; gross lipemia; grossly icteric; less than the amount of serum/plasma specified above

### Interpretive

<table>
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<tr>
<th>Reference Range</th>
<th>Note: Positives will be reported as a percent. If positive after 1 or 7 days, immunotyping of the cryoprecipitate is performed at an additional charge.</th>
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<tbody>
<tr>
<td><strong>Cryoglobulin:</strong> Negative</td>
<td></td>
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<tr>
<td><strong>Cyrofibrinogen:</strong> Negative</td>
<td><strong>Note:</strong> Reported as positive or negative. Quantitation and immunotyping will not be performed on positive cryofibrinogen.</td>
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<th>Critical Values</th>
<th>None</th>
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**Limitations:** Failure to follow specimen handling instructions may cause false-negative results. Not useful for general screening of a population without a clinical suspicion of cryoglobulinemia.

**Methodology:** Quantitation and Qualitative Typing, Precipitation at 1 degree C. When indicated may include Immunofixation,

**References:** Mayo Medical Laboratory April 2016

**Updates:**
3/4/2004: Test moved from Fairview Diagnostic Laboratory to MML. Test now includes both cryofibrinogen and cryoglobulin.
1/31/2007: MML has split out Immunofixation from this test and will only perform and charge for it with a positive cryoglobulin. Order code previously listed as 9052.
8/29/2007: Positive cryoglobulins of ≥0.1 mL of precipitate will be typed once every 6 months.