

# C1QRS

## Orderable – C1QRS

Turnaround Time: 40 days

### Alternate Name(s):

C1qrs components  
C1q  
C1r  
C1s  
C1 complement component group test  
C1qrs levels

### Specimen:

Adult	Pediatric
2 x 4 mL Lavender or 6 mL Pink top (EDTA) Vacutainer tubes	0-2 years: 3-4 x 0.5 mL Lavender or Pink top (EDTA) Microtainers 2-10 years: 3 mL Lavender top (EDTA) Vacutainer tube

**The C1qrs test is ordered as a casset that also includes the CH50 (total complement, TCOMP) test. CH50 will be measured first to determine if the C1qrs test is indicated. Therefore, both EDTA plasma (for C1qrs testing) collected as in the chart above and serum (for CH50 testing) as collected in the chart below are required.**

Adult	Pediatric
5 mL Gold top Vacutainer tube	0-2 years: 2 x 0.5 mL Red or Gold top Microtainers 2-10 years: 3 mL Red top Vacutainer tube

### Collection Information:

C1qrs is a group test comprised of C1q, C1r, C1s.

C1q can be ordered individually – test code C1Q.  
C1r can be ordered individually – test code C1R.  
C1s can be ordered individually – test code C1S.  
See interpretive comments.

The minimum volume of EDTA plasma for each of the C1q, C1r, and C1s tests is 250 µL. If all 3 of C1q, C1r, and C1s are ordered, 3 aliquots of EDTA plasma with at least 250 µL each will be required. Minimum volume of serum for CH50 test is 500 µL.



**Laboratory:**  
Clinical Immunology Lab



**Requisition:**  
[National Jewish Hospital  
Complement Testing  
Requisition](#)



**Method of Analysis:**  
Radial Immunodiffusion  
(RID)



**Test Schedule:**  
Referred out monthly.  
Total complement CH50 is performed as a screen to determine if the component assay is required.



**Referred To:**  
Components are referred to:  
National Jewish Medical and Research Center  
1400 Jackson St.,  
Denver, Colorado  
80206

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## Reference Ranges:

C1q level:	83-125 mg/L
C1r level:	61-162 % of STD
C1s level:	59-297 % of STD

## Interpretive Comments:

The group test C1qrs includes C1q, C1r, C1s protein quantitation. It does not evaluate function.

This test does NOT include C1 esterase inhibitor or C1 esterase inhibitor functional assay. Order these tests separately. See Lab Test Information Guide entry for C1IN.

Low C1IN level, impaired C1IN function, and decreased C1q protein concentration are all associated with acquired angioedema.

The component C1q test does NOT evaluate circulating immune complexes (IC).

Total complement (TCOMP, CH50) is a screen for classical pathway function. The component assay is a quantitative evaluation of the concentration of each component but does not evaluate the functional activity of the component.

## Special Processing:

Centrifuge lavender or pink (EDTA) tube(s) at room temperature as soon as possible after collection. If all 3 of C1q, C1r, and C1s have been ordered, 3 aliquots of EDTA plasma with at least 250  $\mu$ L each will be required. If there is sufficient EDTA plasma volume, please prepare an extra aliquot with at least 250  $\mu$ L for each of the C1q, C1r, and C1s tests that have been ordered. Freeze aliquot tubes as rapidly as possible.

Centrifuge red or gold top tube(s) at room temperature following clotting. Aliquot serum and then freeze aliquot tube.

Send all frozen aliquots (up to 6 aliquots of EDTA plasma for C1qrs and 1 of serum for CH50) and the National Jewish Hospital requisition form to Immunology Lab.

## Comments:

**This test is available exclusively to SJHC/LHSC physicians.**

Total complement is assayed first to determine if the components evaluation is necessary. If the total complement is within the normal range, the component(s) (C1q, C1r, and/or C1s) will not be tested.



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**Storage and Shipment:**

Ship EDTA plasma and serum frozen.