

---

**Lab Dept:** Flow and Immunology

**Test Name:** SOLUBLE CD163 (SCD163)

---

***General Information***

**Lab Order Codes:** CD163

**Synonyms:** sCD163

**CPT Codes:** 83520 - Immunoassay, quantitative, NOS

**Test Includes:** Soluble CD163 level in ng/mL

---

***Logistics***

**Test Indications:** The hemoglobin-haptoglobin scavenger receptor (CD163/HbSR) is a monocyte/macrophage-restricted transmembrane protein of the scavenger receptor cysteine-rich family. Antigen expression is related to monocyte / macrophage differentiation, with weak expression on peripheral blood monocytes and abundant expression on the majority of tissue macrophages.

Monocytes and macrophages play a central role in host response to infection. They synthesize and secrete a variety of inflammatory mediators. It has become increasingly clear that the pro-inflammatory process is balanced by associated anti-inflammatory mechanisms that result in monocyte deactivation, characterized by a decrease in HLA-DR expression and the release of anti-inflammatory cytokines such as IL-10.

It has been shown that the extracellular portion of CD163 is shed from the cell surface in the form of soluble CD163 when the cells are appropriately stimulated. Serum levels of sCD163 have been shown to be associated with levels of CRP. It has also been shown that sCD163 acts as a cytokine with modulatory effects on other cells. sCD163 may be a valuable marker in diseases with macrophage/monocyte involvement, particularly in infectious, inflammatory and myeloproliferative diseases. This assay uses a non-competitive sandwich ELISA technique to measure soluble CD163 in plasma.

**Lab Testing Sections:** Flow Cytometry - Sendouts

**Referred to:** Cincinnati Children's Hospital (CCO Test: 2902100)

**Phone Numbers:** MIN Lab: 612-813-6280

STP Lab: 651-220-6550

**Test Availability:** Daily, 24 hours

**Turnaround Time:** 2 - 3 weeks

**Special Instructions:** Whole blood must remain at room temperature at all times after collection until received in the lab.

---

***Specimen***

**Specimen Type:** Whole blood

**Container:** Lavender top (EDTA) tube

**Draw Volume:** 3 mL (Minimum: 1 mL) blood

**Processed Volume:** Same as Draw Volume

**Collection:** Routine blood collection

**Special Processing:** Lab Staff:  
The reference lab operates Mon-Fri, 8:00am to 5:30pm (EST). Testing is not performed and samples cannot be received on weekends/certain holidays.

**If test is drawn Monday-Thursday,** send as whole blood at room temperature. Ship overnight so specimen can be received at the reference lab within 24 hours of collection.

**If test is drawn Friday-Sunday,** centrifuge specimen and remove EDTA plasma into an aliquot tube. Freeze at -20 degrees C and ship frozen on next business day.

First Overnight shipping is strongly recommended. Please call/fax (513-636-4685/513-636-3861) the tracking number so we may better track your specimen.

**Patient Preparation:** None

**Sample Rejection:** Whole blood sent frozen or refrigerated; separated plasma sent at room temp or refrigerated; mislabeled or unlabeled specimens

---

***Interpretive***

**Reference Range:** 387 - 1785 ng/mL

**Critical Values:** N/A

**Limitations:** This test was developed and its performance characteristics determined by the Cancer and Blood Diseases Institute Clinical Laboratories at CCHMC. It has not been cleared or approved by the FDA. This laboratory is regulated under CLIA as qualified to perform high complexity clinical laboratory testing. This test is used for clinical purposes only and it should be regarded as investigational or for research.

**Methodology:** Enzyme-linked Immunosorbent Assay (ELISA)

**References:** [Cincinnati Children's](#) February 2019