

# COLLECTION & PROCESSING OF WHOLE BLOOD FOR SERUM

Collecting, Preparing, and Shipping Serum  
Samples to CDC for Serology Testing

## 1 Collect 10mL of blood



A 10 mL volume of blood should be collected aseptically from a peripheral vein using appropriate gauge needles and a Vacutainer™ serum separator tube (SST).

## 2 Separation of serum from the blood cells must be done within 60 minutes of sample acquisition to prevent hemolysis.



Separate  
within  
**60 min**

Serum separation must be completed before storing or shipping the serum. All serum separation must be done aseptically to avoid contamination.



Store at  
room temp  
for **30 min**

To separate serum from cells or the clot the Vacutainer™-drawn blood must be stored at room temperature for at least 30 minutes for complete clot formation to minimize the potential of trauma-induced hemolysis.

The serum must be separated from the clotted blood by centrifugation, and then decanted using sterile technique into PLASTIC freezing vials with leak-proof screw caps (such as 2 mL Sarstedt Screw Cap Micro Tube with an O-ring in the lid or equivalent).

Separate  
before  
shipping



## 3 The plastic vials must be labeled appropriately.

5.0 mL



**Patient name** and / or **ID number**

**Date** sample was obtained

Notation indicating if sample is **acute** or **convalescent-phase**

BD Vacutainer  
SST™ II Advance  
REF 555555

## 4



The serum must be frozen immediately following the separation and stored at **-20°C** or colder until shipped to CDC.

## HOW MUCH?

Approximately 5 mL of serum will be obtained from a 10 mL blood volume.



10 mL  
of blood  
=  
5 mL  
of serum



1.0 mL is the minimum acceptable volume needed for testing by CDC.

Store a  
backup  
sample



Send  
> 1.0 mL  
for testing

As a precaution, CDC recommends shipping only part of this approx 5mL serum sample, with the drawing site retaining an aliquot that should remain frozen.

This provides a backup sample in case the CDC sample shipment is lost or arrives in a compromised condition unsuitable for testing.