

**SPECIMEN REQUIREMENTS FOR SERUM SPECIMENS SUBMITTED FOR  
MEASLES IGM CAPTURE ENZYME IMMUNOASSAY**

Revised on June 12, 2007

- Methodology: IGM Capture Enzyme Immunoassay
- Performed: Antibody detection is the most commonly used method for laboratory diagnosis of measles. IgM antibodies can usually be detected within a few days of onset of rash, reach maximum levels at about one to two weeks, and then decline to undetectable levels within one to two months.
- Serological results must always be interpreted in the context of compatible signs and epidemiologic data.
- Criteria for testing: Clinical signs and symptoms compatible with measles.
- Turn-Around-Time: Specimens meeting the case definition set by the Disease Investigation Branch (DIB) of the Disease Outbreak Control Division of the Department of Health. Results are reported out 24 hours after testing.
- Specimen (type) required: A minimum of one (1) mL of serum.
- Specimen Collection: Serum (including serum collected in serum separator tubes) collected as early in the course of the disease as possible ( $\leq 14$  days).
- Serum collected in serum separator tubes and whole blood collected in a vacutainer with no additives (red top) should be transported to the laboratory within 72 hours after collection.
- Specimen storage, packing and transport: Ship specimens in sterile, screw-capped tubes. Follow instructions for Class B – Biological Substance of the U.S. Department of Transportation (U.S. DOT) and International Air Transport Association (IATA) for packing and shipping.
- Specimen submission: Submitters (Clinical Laboratories and Epidemiology Specialists of the Disease Investigation Branch).

Notification of DIB and the laboratory is requested prior to the submission of specimens.

Requisition Form: Submitter is responsible for completing MMB Form 81.3 (including but not limited to the following information: patient identifier, date of onset of illness, signs and symptoms, travel history, immunization history, name and address of submitter).

Unacceptable conditions:

- Specimen that is leaking;
- Improper container or handling;
- Obvious microbial contamination;
- Specimen quantity is insufficient to perform the test;
- Unlabeled specimens;
- Improper or incomplete requisition form (MMB Form 81.3);
- No requisition form;
- Specimen label does not match the requisition.

Stability: Serum or plasma specimens may be stored at 2°C to 8°C for a maximum of 14 days. For longer storage, freeze at <-20°C.

Normal Value: No IgM antibody detected to Measles Virus.


Result Notification: Laboratory results are reported to the submitters and Disease Investigation Branch of the DOH Disease Outbreak Control Division.

Test performed at: Virology Section, Medical Microbiology Branch  
State Laboratories Division  
Department of Health  
2725 Waimano Home Road, 2<sup>nd</sup> Floor  
Pearl City, Hawaii 96782

Contact: Robert T. Ueki, Supervisor, Virology Section  
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(808) 453-6700

Approved by:

A handwritten signature in cursive script that reads "A. Christian Whelen".

A. Christian Whelen, Ph.D.  
State Laboratories Division Administrator

June 15, 2007