Laboratory Preparedness and Response Branch
Biological Response Section

Specimen Requirements for Real-Time (rti) Reverse-Transcriptase Polymerase Chain Reaction (RT-PCR) for Dengue Virus Serotypes 1-4 in Clinical Samples

Methodology: CDC Dengue (DENV-1-4) Real-Time RT-PCR Assay

Performed: The CDC DENV-1-4 Real-Time RT-PCR Assay is an FDA approved assay developed by the CDC for In-Vitro Diagnostic use (IVD).

Criteria for testing: Clinical signs and symptoms compatible with Dengue virus infection and/or specimens meeting the case definition set by the Disease Investigation Branch (DIB) of the Disease Outbreak Control Division (DOCD) of the Department of Health (DOH).

Turn-Around-Time: Results are reported 2-3 business days after approval and receipt of specimen(s).
For Specimens submitted by the USAPI: Results for outbreak related specimens are reported 3-4 business days from receipt of suitable specimen(s). Results for surveillance samples are reported 5-7 business days from receipt of suitable specimen(s).

Dengue typing requests for Dengue positive samples by the Trioplex PCR method will be batched.

Specimen type required: Venous blood sample: Follow device manufacturer’s instructions for proper serum or plasma collection and separation. Serum is the preferred specimen. The best type of tube is serum separator (tiger/speckled-top). Red-top (no additives) is also acceptable. For plasma specimens, use sodium citrate collection tube. Do not use heparin (green top) or EDTA (purple top).

A minimum of 0.5 ml serum or plasma is required.

Dengue specimens must be collected within the first eight (8) days from onset of signs and symptoms.

Specimen storage/transport: Refrigerate serum or plasma at 4°C or maintain on ice for no longer than 24 hours. If storage/transport will exceed 24 hours, freeze serum or plasma at -20°C or lower.
Requisition forms shall be placed in a separate bag and shall not be packed with the specimen(s).

Normal Value: No Dengue Virus Nucleic Acid Detected

Result Notification: Laboratory reports are electronically relayed to the submitters via the SLD dashboard. An automatic notification will be relayed when a report is available on the SLD dashboard. Laboratories who do not receive automatic notification will be notified by e-mail on the availability of results on the SLD Dashboard. Submitters who do not have access to electronic reports will be notified via fax or by encrypted e-mail.

Test performed at: Biological Response Section (BRS) Laboratory Preparedness and Response Branch (LPRB) State Laboratories Division Department of Health 2725 Waimano Home Road Pearl City, Hawaii 96782

Contact: Remedios Gose at (808) 453-5993 or (808) 554-9992 or Cheryl Daquip at (808) 453-5984 or (808) 453-6641

Reviewed By:

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Remedios B. Gose, MSPH, RM (NRCM) Laboratory Preparedness and Response Branch Chief

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12/4/2019
Date