

**Laboratory Preparedness and Response Branch  
Biological Response Section**

**Specimen Requirements for Norovirus (NoV) Detection and Identification by  
Multiplex (TaqMan®) Realtime RT-PCR**

Methodology: Norovirus (NoV) real-time (rti) RT-PCR

Performed: NoV rti RT-PCR is performed only on specimens approved by the Disease Investigation Branch (DIB) of the Disease Outbreak and Control Division (DOCD), Department of Health.

Turn-Around-Time: Samples are batched. Batch of at least 5 samples is desired; however, smaller batches will be run when circumstances dictate.  
Results are reported 2-3 business days after approval of a batch.

Specimen required: A minimum of **one (1) mL of fresh stool** specimen (liquid or semi-solid) without any preservatives, unmixed with urine. **Ideally, specimens should be obtained during the acute phase of illness (i.e., within 48-72 after onset) while the stools are still liquid or semisolid** because the amount of viral excretion is greatest. Stool specimens submitted in Carey-Blair media are also acceptable.

**Notes:** The smaller the specimen and the more formed the stool, the lower the diagnostic yield. **Rectal swabs are of limited or no value** because they usually contain insufficient quantity for typing of the strains. Specimens of **vomit** can be collected to supplement the diagnostic yield from the stool samples, **if vomiting occurs within 12 hours of exposure**. Recommendations for collection, storage and shipment are the same as those for stool specimens.

Specimen storage and transport: Collect stool specimens in clean, dry containers with caps. Bulk samples (i.e., 10-50 mL of stool placed in a stool cup or urine container) are preferred. Stool specimens and/or other specimens should be kept refrigerated at 4°C. Ideally, specimens from **at least 2 (minimum required for CaliciNet), but no more than 6 outbreak-associated ill persons** should be collected during the acute phase of

illness. If the stool specimens are to be transported to the laboratory, they should be bagged, sealed and kept on ice or frozen refrigerant in an insulated, waterproof container. Multiple specimens will be packed in separate zip-loc bags and labeled appropriately.

Specimen submission: Specimens from the **same outbreak** should be submitted by the requesting laboratories as a batch so that testing can be performed simultaneously.

The Epidemiology Specialist of the DIB must notify the Biological Response Section at 453-5993 or 453-5984 prior to the submission of specimens.

Criteria for rejection: Rejection criteria are an accreditation requirement and are intended to ensure specimen integrity prior to testing.

1. Specimen leaked in transit.
2. Specimen is not collected in a proper container or special handling instructions are not followed.
3. Submission on expired Carey-Blair media.
4. Stool specimen is contaminated with urine and/or toilet water.
5. Specimen is not received at 4°C or packed in blue ice.
6. Specimen quantity is insufficient to perform the tests.
7. Unlabeled or incomplete specimen labeling and documentation. Submitter(s) will be notified to provide correct information and corrected State Laboratory Division (SLD) Form 81.3 in person or submit a written documentation by fax or e-mail.
8. Incomplete requisition form (e.g., no date of onset, travel history, if appropriate, etc.). Submitter must complete requisition form.
9. Specimen label does not match the requisition. Submitters must correct the discrepancy.

Stability: Specimens can be stored at 4°C without compromising diagnostic yield for 2-3 weeks.

Requisition Form: Each specimen submitted must have a completed Form 81.3. Submitter is responsible for completing SLD Form 81.3 including but not limited to the following information: at least two patient unique identifiers, specimen site/specimen type, date of onset, date of collection, date shipped/sent to the SLD, test(s) requested, name and address of submitter and other pertinent information.

- **Requisition forms shall be placed in a separate bag and shall not be packed with the specimen(s).**

Normal Value: No Norovirus Nucleic Acid detected.

Result Notification: Laboratory reports are electronically relayed to the Epidemiological Specialist at the DIB, DOCD. **Any other request for copies of laboratory report by submitters other than DOCD will not be accepted and laboratory reports will only be released to the Epidemiology Investigator of DOCD.**

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 453-5993 or 808-554-9992  
Cheryl-Lynn Daquip 453-5984 or 453-6641  
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Reviewed By:

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Laboratory Preparedness and Response Branch Chief

12/4/19  
Date

Approved By:

Edward P. Desmond  
Edward Desmond, Ph.D.  
Administrator, State Laboratories Division

12/4/2019  
Date