
Lab Dept: Microbiology/Virology

Test Name: ROTAVIRUS DETECTION

General Information

Lab Order Codes: ROTA

Synonyms: Rotazyme; Rotavirus Antigen Detection

CPT Codes: 87425 - Infectious agent antigen detection by enzyme immunoassay technique. Qualitative or semiquantitative multiple step method; rotavirus

Test Includes: Direct detection of rotavirus antigen in stool specimens.

Logistics

Lab Testing Sections: Virology

Phone Numbers: MIN Lab: 612-813-5806

STP Lab: 651-220-6555

Test Availability: Daily, 24 hours

Turnaround Time: Specimens must arrive by 2 pm for same day results. All specimens received after that time will be held until the next day for completion.

Special Instructions:

- Requisition must state specific **date/time of collection**.
- Maximum amount of virus is found in the stool 3 - 5 days after disease onset.

Specimen

Specimen Type: Fresh random stool

Container: Plastic leakproof container

Volume: **Liquid stool:** 2 mL

Formed stool: 3 – 4 gm

Collection: Collect stool in a clean, dry bedpan or on a newspaper over the toilet. Transfer specimen to a plastic, leak-proof container. **Do Not** overfill or contaminate the outside of the container.

Transport/Storage:	<p>Onsite collections: Transport to the laboratory immediately. Do Not send through the pneumatic tube.</p> <p>Offsite collections: Refrigerate specimen. Specimens must be promptly transported to the laboratory, with the next available courier, not to exceed 72 hours from the time of collection. However, delayed transport causes a delay of test results.</p> <p>If testing cannot be performed within 72 hours, freeze specimen at -20°C or colder.</p>
Patient Preparation:	Barium procedures and laxatives should be avoided for 1 week prior to collection of the specimen.
Sample Rejection:	No diapers accepted. Improperly labeled specimen; specimen contaminated with urine and/or water; leaking container; insufficient volume; specimen in media or preservatives. If an unacceptable specimen is received, the physician or nursing station will be notified and another specimen will be requested before the specimen is discarded.

Interpretive

Reference Range:	No rotavirus antigen detected
Limitations:	<ul style="list-style-type: none"> ● Negative result does not necessarily rule out the presence of rotavirus. Rotavirus detection is proportional to the amount of antigen present in the stool. After a negative result, when a high index of suspicion exists, the test should be repeated with a new specimen. ● False positive results have been reported with the EIA methods.
Methodology:	Membrane Enzyme Immunoassay (EIA)
Additional Information:	Rotavirus infection is acquired by the fecal to oral route. Generally the incubation period is 1 - 2 days and onset is abrupt. Symptoms include vomiting, diarrhea, fever and abdominal pain. Loss of fluids is the most severe result of rotavirus infection and can lead to severe dehydration. Nosocomial transmission is frequent. Rotavirus is most likely to occur in winter, is highly contagious and involves 5 - 8 days of diarrhea. Age of peak incidence is 6 months to 2 years. Collect stool specimens as soon after onset of symptoms as possible.
References:	<p>Miller, J Michael (1999) A Guide To Specimen Management in Clinical Microbiology, American Society for Microbiology, Washington DC</p> <p>Linscott, A (2016) Specimen Collection, Transport and Acceptability in, A Leber (ed) Clinical Microbiology Procedures Handbook, 4th ed, ASM Press, Washington DC</p>

Dunn, J (2015) Specimen Collection, Transport and Processing in, JH Jorgensen, et al (ed) Manual of Clinical Microbiology, 11th ed, ASM Press, Washington DC, pp 33-104

Immunocard Stat [Package Insert] Cincinnati OH:Meridian BioScience, 2/2015

Updates

7/1/2014: Specimen stability updated, previously 24 hrs at 4 degrees C.
11/20/2014: Offsite information added.