

# FACT SHEET

## Measles virus PCR (Rubeola)

Test 6180

### Test Description:

The SLO Public Health Laboratory performs a molecular amplification test for detection of Measles virus by real time reverse transcription polymerase chain reaction (RT-PCR) method.

Measles is a respiratory disease caused by a virus. Measles disease and the virus that causes it share the same name, although the disease is also known as rubeola. Measles virus normally grows in the cells that line the back of the throat and lungs. The symptoms are fever, runny nose, cough, and a rash all over the body. In children, symptoms can include pneumonia, a complication that is most often the cause of death in young children. Ear infections occur in about 1 in 10 measles cases and permanent loss of hearing can result. Diarrhea is reported in about 8% of cases.

**Sensitivity: 95-98%**

**Specificity: 98-100%**

### Specimens:

**Obtain specimens as soon as possible after rash onset, up to 10 days after onset. The virus is more likely to be isolated in culture when the specimens are collected within 4 days of rash onset.**

1. Preferred:
  - a. Throat Swab (Dacron® tip swabs with an aluminum or plastic shaft) placed in Viral Transport Media (VTM).
2. Acceptable:
  - a. Nasopharyngeal swab or aspirate in VTM
  - b. Urine Specimens
    - To collect a urine: Collect a first morning voided specimen during the first week after rash onset, although any urine specimen collected up to 10 days after rash onset will be accepted. Collect **50-100 ml urine** in a sterile container.
    - **Urine specimens should be shipped and processed by the laboratory within 24 hours of collection.**
3. Measles virus is sensitive to heat and desiccation and viability decreases when samples are not kept cold. **Specimens must be refrigerated at 4°C until they can be sent to the laboratory and must be kept cold during transit.**
4. Specimens other than urines can be held at **4°C for 72 hours** before testing.
5. If specimens are held for **>72 hours**, they should be frozen, preferably at **-70°C**.
6. Avoid repeat freeze-thaw cycles.



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