San Diego County Public Health Laboratory
Health and Human Services Agency
3851 Rosecrans Street, Suite 716
San Diego, CA 92110 (619) 692-8500
CLIA # 05D0060808

Zika Virus (ZIKV) Diagnostic Specimen Testing Directions

Notification and Pre-approval Required:

Consultation and prior approval is required from the San Diego County Epidemiology Program. Epidemiology program can be contacted by calling 619-692-8499 during business hours. For after hours, weekends, or holidays, call 858-565-5255 and ask for the Epidemiology Duty Officer.

Required Form(s) and Supplemental Information:

- VRDL General Submittal Form 300: https://www.cdph.ca.gov/programs/vrdl/Documents/VRDL_General_Human_Specimen_Submittal_FormLab300.pdf)
- CDC DASH Form 2016 (CDC Form 50.34). **Only required on saliva, semen, or tissue samples.**
  Test order name: **Arbovirus Serology**
  Test order code: **CDC-10282.** On page 2 of the DASH form, under PATIENT HISTORY, BRIEF CLINICAL SUMMARY, "**Requesting Zika virus testing**"

Acceptable Specimens and Required Volume:

RT-PCR Testing: Testing performed on **symptomatic cases** only. **NOTE:** Serum ***must*** be submitted with urine, CSF or amniotic fluid.

Serum or CSF: PCR can detect Zika, Chikungunya and Dengue viruses. Collect within 7 days of illness onset.

- Serum: ≥ 2 mL of serum (5-10 ml of blood) in a red or tiger top serum separator vacutainer plastic tube
- CSF: 1-2 mL in sterile, leak-proof, screw cap plastic tube

Urine or Amniotic fluid: PCR can detect Zika virus only. Collect within 21 days of illness onset.

- Urine: collect at least 2 ml in sterile, leak-proof, screw cap urine container or 15 ml conical tube, unprocessed/unspun.
- Amniotic fluid: collect at least 2 mL of fluid if amniocentesis is performed.

Serology: IgM and Plaque Reduction Neutralization Test (PRNT) Testing:

- Serum: ≥ 2 mL of serum (5-10 ml of blood) in a red or tiger top serum separator vacutainer plastic tube

Asymptomatic pregnant women: Collect serum sample between 2-12 weeks after last potential exposure.
NOTE: A negative serology test obtained 2-12 weeks after travel cannot definitively rule out Zika virus infection.
Symptomatic cases: Optimal collection of acute blood is >3 days after illness onset. A second convalescent serum should be collected if the initial IgM testing is negative and Zika is strongly suspected.

Other Tissues and nonstandard specimens:

- Cord blood, placenta, tissues, fetal specimens: Please consult with Community Epidemiology and SDPHL prior to collecting samples for testing.

Specimen Collection/Storage/Transport Instructions:

- Store samples at 4-8 ^{o}C and ship on cold packs within 24 to 72 hours.

Shipping Instructions and Specimen Handling Requirements:

Do not send specimens to San Diego County Public Health Laboratory (SDPHL) without prior consultation and approval from the Epidemiology Program. Samples without prior approval and complete paperwork will not be tested. Please DO NOT send specimens directly to VRDL and CDC for testing.

For questions related to sample requirements, call SDPHL at (619) 692-8500 during business hours, and 619-666-8889 for after hours, weekends or holidays.

Turnaround Time (TAT):

- VRDL: Two to six weeks. Samples requiring serology confirmation by Plaque Reduction Neutralization Test (PRNT) will take additional time to report.

Interferences and Limitations:

ZIKV IgM antibodies may be detected after 3 days post-onset of symptoms but may not develop during the first 7 days of illness. A convalescent specimen may be required. ZIKV IgM may persist for months and may cross react with other arboviruses leading to false positive IgM capture ELISA serology results. Additional confirmatory testing by PRNT is required. Immunization against Yellow Fever or Japanese Encephalitis as well as past infection with other arboviruses such as West Nile or St. Louis encephalitis virus may complicate interpretation of serology results.

Reference Range:

Not Detected