



## 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:

- San Diego County Public Health Laboratory Request Form: ZIKA TEST
- VRDL General Submittal Form 300:  
[https://www.cdph.ca.gov/programs/vrdl/Documents/VRDL\\_General\\_Human\\_Specimen\\_Submittal\\_Form\\_Lab300.pdf](https://www.cdph.ca.gov/programs/vrdl/Documents/VRDL_General_Human_Specimen_Submittal_Form_Lab300.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:

**NAAT (Nucleic Acid Amplification Test) by Hologic:** For Zika virus only. Testing performed on asymptomatic cases and all urine samples.

**RT-PCR Testing:** Testing performed on symptomatic cases only and when Aedes are found. **NOTE:** Serum and urine are the primary diagnostic specimens for Zika virus infection. Serum **must** be submitted with urine, CSF or amniotic fluid.

**Serum or CSF:** Triplex rt-PCR can detect Zika, Chikungunya and Dengue viruses; NAAT (TMA) by Hologic can detect Zika only on serum; it is not approved for CSF

- Serum: Collect within 2 weeks after symptom onset; submit **two** individual **tiger top serum separator** vacutainer plastic tubes containing 5-10 ml of blood ( $\geq$  2ml of serum)
- CSF: Collect within 7 days following onset; 1-2 mL in sterile, leak-proof, screw cap plastic tube

**Urine or Amniotic fluid:** Triplex rt-PCR can detect Zika virus only. NAAT (TMA) by Hologic can detect Zika only on urine; it is not approved for amniotic fluid

- Urine: Collect within 14 days following symptom onset, 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: **two** individual **tiger top serum separator** vacutainer plastic tubes containing 5-10 ml of blood ( $\geq$  2ml of serum)

**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.

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**Specimen Collection/Storage/Transport Instructions:**

- Store samples at 4-8 °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):**

- SDPHL: 1 to 7 days
- VRDL: 2 to 6 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