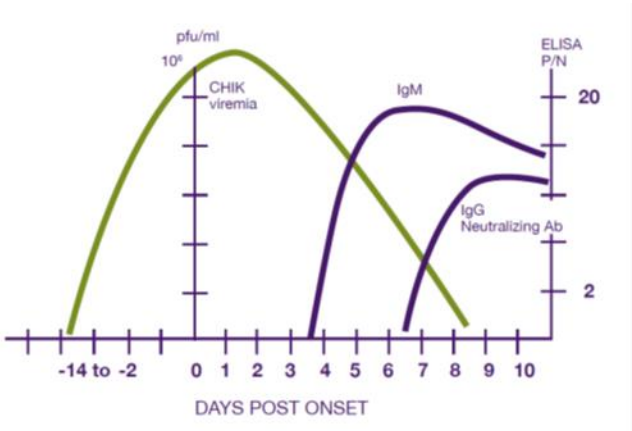
Louisiana Office of Public Health Laboratories	
Test Name	Chikungunya IgM
PHL Location	Office of Public Health Laboratory Baton Rouge
CPT Code	86790
Synonyms	CHIK IgM
Brief Description of Test	**Prior authorization required. Contact Infectious Disease Epidemiology at 800-256-2748.** This procedure is for the qualitative detection of IgM antibodies against Chikungunya Virus in human serum. Positive results must be confirmed by Plaque Reduction Neutralization Test (PRNT), or by using the current CDC guidelines for diagnosis of this disease.
Possible Results	• ***Negative****:* No detectable IgM antibody; individual does not appear to be infected with Chikungunya virus. The result does not rule out Chikungunya virus infection. An additional sample should be tested within 7 – 14 days if early infection is suspected. Chikungunya PCR can be performed to rule out early acute infection. See CVM.PR.EXM.016 Detection and Identification of Chikungunyua Virus by Real time RT PCR • ***Inconclusive****:* Samples should be retested before reporting. • ***Presumptive Positive****:* Presence of detectable IgM antibody; presumptive infection with Chikungunya virus. The result should be confirmed by plaque reduction neutralization test (PRNT) or by using the latest CDC guideline for diagnosis of this disease. A positive IgM result does not indicate a recent infection because IgM may persist for several months after infection.
Reference Range	Negative
Specimen Type	Serum
Specimen Container(s):	Blood Serum Collection Tube or Screw-cap tube for pour-off
Minimum volume accepted:	Request 1 mL 300 µL minimum
Collection Instructions	Specimen Container – Serum Separator Tubes (SST) or Screw Cap Aliquot Label specimen with Patient Name and a 2nd unique identifier such as a chart number or medical record number. DOB is not considered unique. Complete a Lab Form 96 to accompany the serum sample. Lab submission form must be thoroughly completed with patient's first

	and last name, 2nd patient identifier, gender, date of birth, date of collection, time of collection, test requested, and submitter's name, address, and contact number. The same two unique identifiers **MUST** be recorded on the tube **AND** the Lab 96 form. Transport specimen to laboratory as soon as possible after collection. Keep submission forms insulated from specimens.
Storage and Transport Instructions	• 2-8°C for 5 days or • For shipments that are delivered >5 days from collection, specimens should be kept frozen (-20 to -70°C). If serum specimen is to be frozen, do not freeze in original blood serum collection tube. Pour-off serum into a screw cap tube.
Causes for Rejection	• Unspun • Short Draw/Overfill • Received outside acceptable transport conditions • Incorrect source • Incorrect labeling • Expired collection tubes • Not approved for testing by Infectious Disease Epidemiology
Limitations of the Procedure	• All reactive samples must be confirmed by PRNT or by using the latest CDC guideline for diagnosis of this disease. • Since this is a presumptive positive assay, the presence of false positive and false negative results must be considered. Cross reactivity with antibodies against Borrelia, CMV and Toxoplasma cannot be excluded. • Cross-reactivity with antibodies against other alphaviruses cannot be excluded.
Interfering Substances	Interference with polyclonal stimulation of EBV infections is likely. In the presence of infectious Mononucleosis (Pfeiffer's Disease, EBV infection) polyclonal stimulation of B lymphocytes can occur. This may result in non-specific reactions in the detection of antibodies of the IgM class. Therefore it is recommended to exclude an EBV infection by differential diagnosis.
References	Package Insert: Genway Anti-Chikungunya Virus IgM Human μ-capture ELISA Kit
Additional Information	Laboratory evidence of recent chikungunya virus infection is generally accomplished by testing serum or plasma to detect virus, viral nucleic acid, or virus-specific immunoglobulin (Ig) M and neutralizing antibodies. Viral culture may detect virus in the first 3 days of illness; however, chikungunya virus should be handled under biosafety level (BSL) 3 conditions. During the first 8 days of illness, chikungunya viral RNA can often be identified in serum, and RT-PCR is the preferred test (Figure). Chikungunya virus IgM antibodies are generally detectable ≥4 days after onset of illness and can persist for months. Serum collected within 4 days of illness

	onset may not have detectable IgM antibodies and testing should be repeated on a convalescent-phase sample to rule out infection in those with a compatible clinical syndrome. 
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