Los Angeles County Public Health Laboratories
12750 Erickson Avenue
Downey, CA 90242
Phone (562) 658-1300 Fax (562) 401-5999

Measles IgG and IgM Panel, IFA

Other Name(s)	Rubeola
LIMS Code	MEGIS, MEMIS
Pre-Approval Required	Consultation and approval are required by the Los Angeles County Department of Public Health Vaccine Preventable Disease Control Program for diagnostic measles laboratory testing. Immunity screen requires IgG determination only. To report suspect measles, the Vaccine Preventable Disease Program can be reached weekdays 7:30 am – 5:00 pm by calling 213-351-7800. Ask to speak to the Epidemiologist on duty. During non-business hours (before 7:30 am, after 5:00 pm, or weekends) call 213-974-1234 and ask to speak to the after-hours physician serving as the Administrative Officer on Duty (AOD) before sending specimens to the Public Health Laboratory.
Supplemental Information and Required Form(s)	Los Angeles County PHL Test Request Form http://www.publichealth.lacounty.gov/lab/labforms.htm
Acceptable Specimen Type(s)	**Serum:** Collect in red top or gold top serum separator tube (SST). Separate serum by centrifugation if possible. Aseptically transfer serum to a screw cap, sterile, leak proof container. **For Infants:** Capillary tubes may be used. Collect 3 tubes to assure adequate specimen volume. See special instructions from CDPH-VRDL located at: http://www.cdph.ca.gov/HealthInfo/discond/Documents/CDPHMeaslesLAbTesting2011-01.pdf To confirm acute infection, paired samples are required. The first sample (**acute**) should be taken as soon as possible after the clinical signs of infection. The second (**convalescent**) sample should be taken within 10-14 says of the first.
Minimum Volume Required	2 mL serum
Storage/Transport Conditions **Transport Medium**	Blood specimens should be stored at 4-8 °C. If testing is to be delayed longer than 5 days, the samples should be frozen at -20°C or colder. Specimens should be submitted in a biohazard specimen bag with absorbent material. Transport specimens in an insulated container on cold pack. Capillary tubes should be capped and placed in another larger tube for protection before transport. None
Specimen Labeling	Patient full name, DOB, MRN, date collected, and specimen type, if applicable. Test subject to CLIA regulations and requires two unique patient identifiers on the primary specimen container and the test requisition including patient ID, date of collection, submitter information, and specimen ID number. The identifiers must be clearly labeled on specimen and must match to information on the requisition form.
Shipping Instructions and Specimen Handling Requirements	To schedule a courier during regular business hours M-F 8:00 am – 5:00 pm, contact Central Accessioning at (562) 658-1460. After hours call (213) 974-1234 and ask for the Public Health Laboratory Director.
Test Methodology	Indirect fluorescent antibody (IFA) test
Turnaround Time	1-3 business days after specimen receipt at the Public Health Laboratory
Interferences & Limitations	Lack of significant rise in antibody titer does not exclude the possibility of measles infection. When measuring IgG antibody levels, positive results in neonates must be interpreted with caution since maternal antibody is transferred passively from the mother to the fetus before

	birth. IgM assays are generally more useful indicators of infection children below the age of six months. Results of this test should be interpreted in the light of other clinical findings and diagnostic procedures.
Additional Information	Providers are encouraged to collect acute serum specimens in conjunction with respiratory and urine specimens when possible to assist with the diagnosis of measles. In recently vaccinated persons (6-45 days prior to rash onset), neither IgM nor IgG responses can distinguish measles disease from a vaccination response. A separate specimen (urine, NP, or throat) must be submitted for Measles PCR and genotyping to distinguish between vaccine and wild-type strains.
Reference Range	IgG <8, No Antibody Detected; IgM <10, No Antibody Detected
CPT Code(s)	86765 x 2
LOINC Code	21501-2; 5245-6

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Measles IgG Antibody, IFA

Other Name(s)	Rubeola
LIMS Code	MEGIS
Pre-Approval Required	Consultation and approval are required by the Los Angeles County Department of Public Health Vaccine Preventable Disease Control Program for diagnostic measles laboratory testing. Immunity screen requires IgG determination only. To report suspect measles, the Vaccine Preventable Disease Program can be reached weekdays 7:30 am – 5:00 pm by calling 213-351-7800. Ask to speak to the Epidemiologist on duty. During non-business hours (before 7:30 am, after 5:00 pm, or weekends) call 213-974-1234 and ask to speak to the after-hours physician serving as the Administrative Officer on Duty (AOD) before sending specimens to the Public Health Laboratory.
Supplemental Information and Required Form(s)	Los Angeles County PHL Test Request Form http://www.publichealth.lacounty.gov/lab/labforms.htm
Required Specimen Type(s)	**Serum:** Collect in red top or gold top serum separator tube (SST). Separate serum by centrifugation if possible. Aseptically transfer serum to a screw cap, sterile, leak proof container. **For Infants:** capillary tubes may be used for specimen collection. See special instructions from CDPH-VRDL located at: http://www.cdph.ca.gov/HealthInfo/discond/Documents/CDPHMeaslesLAbTesting2011-01.pdf To confirm acute infection, paired samples are required. The first sample (**acute**) should be taken as soon as possible after the clinical signs of infection. The second (**convalescent**) sample should be taken within 10-14 says of the first.
Minimum Volume Required	1 mL serum (minimum 0.25 mL)
Storage/Transport Conditions **Transport Medium**	Blood specimens should be stored at 4-8 °C. If testing is to be delayed longer than 5 days, the samples should be frozen at -20°C or colder. Specimens should be submitted in a biohazard specimen bag with absorbent material. Transport specimens in an insulated container on cold pack. None
Specimen Labeling	Patient full name, DOB, MRN, date collected, specimen type. Test subject to CLIA regulations and requires two unique patient identifiers on the primary specimen container and the test requisition including patient ID, date of collection, submitter information, and specimen ID number. The identifiers must be clearly labeled on specimen and must match to information on the requisition form.
Shipping Instructions and Specimen Handling Requirements	To schedule a courier during regular business hours M-F 8:00 am – 5:00 pm, contact Central Accessioning at (562) 658-1460. After hours call (213) 974-1234 and ask for the Public Health Laboratory Director.
Test Methodology	Indirect fluorescent antibody (IFA) test
Turnaround Time	2 business days
Interferences & Limitations	Lack of significant rise in antibody titer does not exclude the possibility of measles infection. When measuring IgG antibody levels, positive results in neonates must be interpreted with caution since maternal antibody is transferred passively from the mother to the fetus before birth. IgM assays are generally more useful indicators of infection children below the age of six months.

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Measles RNA, Qualitative Real-Time PCR

Other Name(s)	Rubeola
LIMS Code	MEVPCR
Pre-Approval Required	Consultation and pre-approval are required by the Los Angeles County Department of Public Health Vaccine Preventable Disease Control Program for measles laboratory testing. The Vaccine Preventable Disease Program can be reached weekdays 7:30 AM - 5:00 PM by calling (213) 351-7800. Ask to speak to the Epidemiologist on duty. After 5:00 PM Monday thru Friday, weekends and holidays call the county operator (213) 974-1234, Option 8 and ask to speak to the after-hours physician serving as the Administrative Officer on Duty (AOD) before sending specimens to the Public Health Laboratory.
Supplemental Information and Required Form(s)	Los Angeles County PHL Test Request Form http://www.publichealth.lacounty.gov/lab/labforms.htm
Required Specimen Type(s)	Throat swab (preferred) or Nasopharyngeal (NP) swab ideally obtained within 3 days of rash onset Urine collected midstream (first morning void preferred), clean-catch
Minimum Volume Required	3 mL of universal or viral transport media for swab 10 – 50 mL for urine (10 mL minimum)
Storage/Transport Conditions **Transport Medium**	Store at refrigerated (4-8° C) temperature. Swab samples should be submitted on cold packs as soon as possible and within 24 hours of collection. If transit time is longer, freeze specimen and transport on dry ice. (**Do not freeze urine**). Throat or NP swab: Universal or viral transport media (UTM) Urine: Screw cap, sterile container without preservatives
Specimen Labeling	Patient full name, DOB, MRN, date collected, and specimen type, if applicable. Test subject to CLIA regulations and requires two unique patient identifiers on the primary specimen container and the test requisition including patient ID, date of collection, submitter information, and specimen ID number. The identifiers must be clearly labeled on specimen and must match to information on the requisition form.
Shipping Instructions and Specimen Handling Requirements	To schedule a courier during regular business hours M-F 8:00 AM-5:00 PM, contact Central Accessioning at (562) 658-1460. After hours call 213-974-1234 and ask for the Public Health Laboratory Director.
Test Methodology	Real Time Polymerase Chain Reaction (PCR)
Turnaround Time	1-2 business days from sample receipt at the Public Health Laboratory
Interferences & Limitations	Specimen types listed are the only ones validated for this assay. Throat or nasopharyngeal: Dacron tip or flocked swabs in universal or viral transport media are the only acceptable specimen collection systems. Urine: Fresh, never frozen, unpreserved urine in a leakproof sterile container is the only acceptable specimen collection system. A negative result cannot rule out measles, particularly if the specimen is of poor quality or taken too late after illness onset. Measles PCR is not appropriate for asymptomatic contacts or to confirm immune status. Recent MMR immunization may result in a positive Measles PCR result.
Additional Information	Positive PCR samples will be forwarded to the State Public Health Laboratory for non-diagnostic epidemiological typing. Typing is required to differentiate vaccine strain from wild type Measles.

Reference Range	Not detected
CPT Code(s)	87798
LOINC Code	48508-6