Lab Dept:	**Serology**
Test Name:	**PARVOVIRUS B19 IGG/IGM ANTIBODY**

General Information

Lab Order Codes:	PVS
Synonyms:	Parvovirus B 19 Antibodies, IgG and IgM; B19 Antibodies; Fifth Disease; Human Parvovirus B19 Aby
CPT Codes:	86747 x2 – Antibody; parvovirus
Test Includes:	Specific testing for IgG and IgM Parvovirus B19 antibodies.

Logistics

Test Indications:	Useful for the detection of parvovirus B19 IgG and IgM antibodies to aid in diagnosing erythema infectiosum,parvovirus B19 aplastic crisis, and other parvovirus B19 related diseases.
Lab Testing Sections:	Serology - Sendouts
Referred to:	Mayo Medical Laboratories (MML Test: PARVS)
Phone Numbers:	MIN Lab: 612-813-6280 STP Lab: 651-220-6550
Test Availability:	Daily, 24 hours
Turnaround Time:	1 - 3 days, test performed Monday - Friday
Special Instructions:	N/A

Specimen

Specimen Type:	Blood
Container:	SST (Gold, marble or red)
Draw Volume:	1.5 mL blood
Processed Volume:	0.5 mL serum
Collection:	Routine venipuncture

Special Processing:	Lab Staff: Centrifuge and remove serum aliquot. Store aliquot in a screw-capped, round-bottom, plastic vial. Refrigerate serum after separating. Forward promptly.
Patient Preparation:	None
Sample Rejection:	Specimens other than serum, gross hemolysis, gross lipemia, mislabeled or unlabeled samples

Interpretive

Reference Range:	IgG: Negative
	IgM: Negative

Parvo IgM result	Parvo IgG result	Interpretation
IgM Negative	IgG Negative	Implies no past infection. Patient may be susceptible to B19V infection
IgM Negative	IgG Positive	Implies past exposure/infection, minimal risk of B19V infection
IgM Equivocal	IgG Positive or Negative	May indicate current of recent B19V infection retest in 1-2 weeks
IgM Positive	IgG Positive	Implies current or recent B19V infection
IgM Positive	IgG Negative or Equivocal	May indicate current B19V infection retest in 1-2 weeks
The presence of IgM class antibodies suggests recent infection. The presence of IgG antibodies ony is indicative of past exposure. Both IgG and IgM may be present at or soon after onset of illness and reach peak titers within 30 days. Because IgG antibody may persist for years, diagnosis of acute infection is made by the detection of IgM antibodies. The prevalence of parvovirus B19 IgG antibodies increases with age. The age-specific prevalence of antibodies to parvovirus is 2% to 9% of children under 5 years, 15% to 35% in children 5-18 year, and 30% to 60% in adults (19 yrs or older).		

Critical Values: N/A

Limitations: Specimens drawn prior to seroconversion may yield negative IgM and IgG antibody results, while specimens taken after IgM antibody levels have begun to decline may yield negative IgM antibody results. The results of a single assay or combination of IgM and IgG-enzyme immunoassay results specific for parvovirus, should not preclude additional testing. Follow-up testing of convalescent samples may be beneficial to establish infection status.

The continued presence or absence of antibodies cannot be used to determine the success or failure of therapy.

Test results of specimens from immunocompromised patients may be difficult to interpret.

Testing should not be performed as a screening procedure for the

general population. Testing should only be done when clinical evidence suggests the diagnosis of parvovirus B19-associated disease.

The performance of this test has not been established on neonates and immunocompromised patients.

Specimens containing antinuclear antibodies may produce equivocal or positive test results in the IgM assay.

Epstein-Barr virus-positive specimens may produce positive or equivocal test results in the IgM assay.

Assay performance characteristics have not been established for matrices other than serum.

Methodology: Enzyme Immunoassay (EIA)

References: Mayo Medical Laboratories Web Page November 2017

Updates: 7/29/2004: Mayo has changed this test procedure to allow for reporting quantitative results effective 7/8/2004. Previously reported as positive or negative.