
Lab Dept: Serology

Test Name: STRIATIONAL ANTIBODY, SERUM

General Information

Lab Order Codes: STRM

Synonyms: Striated Muscle Antibody; Anti-skeletal Muscle Antibody; Anti-Striated Antibody; Muscle (Skeletal) Antibodies; Myoid Antibody; Myasthenia Gravis Antibodies

CPT Codes: 83520 – Immunoassay, analyte, quantitative, not otherwise specified

Test Includes: Striational antibody reported as a ratio.

Logistics

Test Indications: As a serological aid in the diagnosis of thymoma, especially in patients with onset of Myasthenia Gravis (MG) younger than 45 years. As a screening test for MG in older patients, especially when tests for muscle AChR antibodies are negative. Serial measurements are useful in monitoring the efficacy of immunosuppressant treatment in patients with Myasthenia Gravis. Serial measurements are useful after treatment of thymoma. Serial measurements in recipients of D-penicillamine or bone marrow allografts may be useful in monitoring autoimmune complications and graft-versus-host disease, respectively.

Autoantibodies directed against the contractile elements of striated muscle are found in 30% of adult patients with myasthenia gravis and 80% of those with thymoma. These antibodies may also be detected in patients with: Lambert-Eaton myasthenic syndrome, small-cell lung carcinoma, breast carcinoma, patients treated with D-penicillamine, bone marrow transplant recipients having graft-versus-host disease, and autoimmune liver disorders.

While the test is used as a serological aid in the diagnosis of thymoma, especially in patients with onset of myasthenia gravis (MG) younger than 45 years, it is more predictive of thymoma when accompanied by a muscle acetylcholine receptor (AChR) modulating antibody value of > or =90% AChR loss and is most predictive of thymoma when accompanied by CRMP-5-IgG. Serial measurements are useful after treatment of thymoma. Measurements of muscle AChR binding, muscle AChR modulating antibody, and CRMP-5_IgG (if initially positive) are also recommended.

Lab Testing Sections: Chemistry - Sendouts

Referred to: Mayo Medical Laboratories (MML Test #: STR)

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability:	Daily, 24 hours
Turnaround Time:	3 - 5 days, performed Monday – Friday
Special Instructions:	N/A

Specimen

Specimen Type:	Blood
Container:	Red top tube
Draw Volume:	1.5 mL (Minimum: 1 mL) blood
Processed Volume:	0.5 mL (Minimum: 0.3 mL) serum
Collection:	Routine venipuncture
Special Processing:	Lab Staff: Centrifuge specimen, remove serum into a screw-capped plastic vial. Store and ship and refrigerated temperatures.
Patient Preparation:	None
Sample Rejection:	Specimens other than serum; mislabeled or unlabeled specimens; gross hemolysis; gross lipemia; grossly icteric

Interpretive

Reference Range: <1:120

Note:

Striational antibodies occur in approximately:

- 14% of patients with thymoma without clinical evidence of MG
- 30% of patients with acquired (autoimmune) myasthenia gravis
- 74% of patients with thymoma in association with MG
- 25% of rheumatoid arthritis (RA) patients treated with D-penicillamine, 4% in untreated RA patients
- 5% of patients with Lambert-Eaton myasthenic syndrome (LES) and/or small-cell lung carcinoma (SCLC)
- In some bone marrow recipients with graft-versus-host disease.

The incidence in healthy subjects is <1%.

A rising titer after removal of thymoma may be indicative of tumor recurrence.

Critical Values: N/A

Limitations: A negative result does not exclude the presence of thymoma (20% are negative)

Methodology: Enzyme Immunoassay (EIA)

References: [Mayo Medical Laboratories Web Page](#) July 2015

Updates: 6/30/2014: Reference range change, previously listed as <1:60.