

## Acetylcholine Receptor Antibodies by Radioimmunoprecipitation

Test Name	Acetylcholine receptor antibodies by RIPA
Abbreviations	AChR Ab RIPA
CPT code	83519
Methodology	In-house radioimmunoprecipitation assay
Intended use	Diagnosis of myasthenia gravis (MG)
Test requirements	<p><u>Specimen Type</u>: Serum</p> <p><u>Minimum volume</u>: 0.5 mL</p> <p><u>Preferred volume</u>: 3 mL</p> <p><u>Rejection criteria</u>: grossly hemolytic, icteric, or lipemic. If the sample arrives at room temperature.</p>
Specimen collection	<ul style="list-style-type: none"> <li>No patient preparation required before collection.</li> <li>5 mL SST tube (gold-top)</li> <li>Spin tubes, aliquot serum, and ship on cold-packs same day</li> </ul>
Specimen stability	<p>Up to 7 days at room temp (15 - 25°C)</p> <p>Up to 4 weeks refrigerated (2 - 8°C)</p> <p>Up to 2 freeze / thaws</p>
Test schedule	Once a week (2 day procedure)
TAT	2 – 8 days
Reference range	<p>Negative: 0.0 – 0.2 nmol/L</p> <p>Borderline: 0.2 – 2 nmol/L</p> <p>Positive: &gt; 2 nmol/L</p>
Limitations	<ul style="list-style-type: none"> <li>This test was developed and its performance determined by Neurocode USA Inc. It has not been cleared or approved by the Food and Drug Administration.</li> <li>Please indicate if patients are on immunomodulating treatments as these may interfere with testing.</li> <li>Causal antibodies cannot be identified in about 10% of MG cases. Therefore, a positive result is specific for the diagnosis of AChR ab myasthenia gravis (MG), but a negative result does not rule out an MG diagnosis.</li> </ul>
References	<ul style="list-style-type: none"> <li>Vincent A, Davis JN. Anti-acetylcholine receptor antibodies. JNNP. 1980 Jul 1;43(7):590-600.</li> <li>Oger J, Kaufman R, Berry K. Acetylcholine receptor antibodies in myasthenia gravis: use of a qualitative assay for diagnostic purposes. CJNS. 1987 Aug;14(3):297-302.</li> <li>Oger J, Frykman H. An update on laboratory diagnosis in myasthenia gravis. Clinica Chimica Acta. 2015 Sep 20;449:43-8.</li> <li>Frykman H, Kumar P, Oger J. Immunopathology of autoimmune myasthenia gravis: implications for improved testing algorithms and treatment strategies. Front neurol. 2020 Dec 9;11:596621.</li> </ul>

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|  | <ul style="list-style-type: none"><li>• Frykman H, Kumar P. Laboratory Testing of Myasthenia Gravis: New Treatments Drive Change. JALM. 2021 Jul 1;6(4):1087-9.</li><li>• Frykman H, et al. Immunopathology of autoimmune myasthenia gravis: implications for improved testing algorithms and treatment strategies. Front Neurol. 2020 Dec 9;11:596621.</li></ul> |
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