Test Definition: CS1CS

Contactin-Associated Protein-1 (CASPR1)-IgG, Cell Binding Assay, Serum (Non-Orderable)

Overview

Useful For

Only orderable as part of a profile. For more information see:
CIDP / Chronic Inflammatory Demyelinating Polyradiculoneuropathy/Nodopathy Evaluation, Serum
CNES / Peripheral Nervous System Comprehensive Neuropathy, Autoimmune Evaluation, Serum
DMNES / Peripheral Nervous System Demyelinating Neuropathy, Autoimmune Evaluation, Serum

Evaluating patients with suspected peripheral neuropathy

Method Name

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Cell-Binding Assay (CBA)

NY State Available

Yes

Specimen

Specimen Type

Serum

Specimen Required

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-CNES / Peripheral Nervous System Comprehensive Neuropathy, Autoimmune Evaluation, Serum
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Specimen Minimum Volume

Serum: 0.5 mL

Reject Due To

Gross hemolysis	Reject
Gross lipemia	Reject

Gross icterus	Reject

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
Serum	Refrigerated (preferred)	28 days	
	Ambient	72 hours	
	Frozen	28 days	

Clinical & Interpretive

Clinical Information

Contactin-associated protein-1 (CASPR1) antibody is useful in the identification of autoimmune nodopathy cases, which can resemble chronic inflammatory demyelinating polyradiculoneuropathy (CIDP). Detecting this antibody helps in selecting appropriate treatment. Patients who are CASPR1 IgG positive often do not respond well to IVIG (intravenous immunoglobulin), the standard CIDP therapy, but several have responded well to rituximab therapy. CASPR1 forms a complex with contactin-1 (CNTN1), which is important for function. Autoantibodies have been identified that can target each protein (CASPR1 or CNTN1) alone, the CNTN1/CASPR1 complex, or both. Identifying the presence of these autoantibodies is useful in evaluating patients with suspected autoimmune peripheral neuropathy.

Reference Values

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-CNES / Peripheral Nervous System Comprehensive Neuropathy, Autoimmune Evaluation, Serum
-DMNES / Peripheral Nervous System Demyelinating Neuropathy, Autoimmune Evaluation, Serum

Negative

Interpretation

Seropositivity for contactin-associated protein-1 IgG is consistent with an immune mediated demyelinating neuropathy. A paraneoplastic basis should be considered, according to age, sex, and other risk factors.

Cautions

A negative contactin-associated protein-1 IgG result doesn’t exclude an immune mediated demyelinating neuropathy.

Clinical Reference

1. Paramasivan NK, Basal E, LaFrance-Corey RG, et al. Clinical insights into CASPR1 and CASPR1/contactin-1 complex autoimmune nodopathies. Neurology. 2026;106(5):e214403. doi:10.1212/WNL.0000000000214403
2. Pascual-Goni E, Fehmi J, Lleixa C, et al. Antibodies to the Caspr1/contactin-1 complex in chronic inflammatory demyelinating polyradiculoneuropathy. Brain. 2021;144(4):1183-1196. doi:10.1093/brain/awab014
3. Doppler K, Appeltshauser L, Villmann C, et al. Auto-antibodies to contactin-associated protein 1 (Caspr) in two patients with painful inflammatory neuropathy. Brain. 2016;139(Pt 10):2617-2630. doi:10.1093/brain/aww189
4. Bresciani L, Salvalaggio A, Vegezzi E, et al. Caspr1 antibodies autoimmune paranodopathy with severe tetraparesis:

Potential relevance of antibody titers in monitoring treatment response. J Peripher Nerv Syst. 2023;28(3):522-527. doi:10.1111/jns.12565

Performance

Method Description
Patient sample is applied to a composite slide containing transfected and nontransfected EU90 cells. After incubation and washing, fluorescein-conjugated goat-antihuman IgG is applied to detect the presence of patient IgG binding.(Package insert: IIFT: Neurology Mosaics, Instructions for the indirect immunofluorescence test. EUROIMMUN; FA_112d-1_A_UK_C13, 02/25/2019)

PDF Report
No

Day(s) Performed
Monday through Sunday

Report Available
3 to 5 days

Specimen Retention Time
2 days

Performing Laboratory Location
Mayo Clinic Laboratories - Rochester Main Campus

Fees & Codes

Fees
- Authorized users can sign in to Test Prices for detailed fee information.
- Clients without access to Test Prices can contact Customer Service 24 hours a day, seven days a week.
- Prospective clients should contact their account representative. For assistance, contact Customer Service.

Test Classification
This test was developed and its performance characteristics determined by Mayo Clinic in a manner consistent with CLIA requirements. It has not been cleared or approved by the US Food and Drug Administration.

CPT Code Information
86255 x2

LOINC® Information

MAYO CLINIC LABORATORIES

Test Definition: CS1CS

Contactin-Associated Protein-1 (CASPR1)-IgG, Cell Binding Assay, Serum (Non-Orderable)

Test ID	Test Order Name	Order LOINC® Value
CS1CS	CASPR1-IgG CBA, S	No LOINC Needed

Result ID	Test Result Name	Result LOINC® Value
623393	CASPR1-IgG CBA, S	101448-9
624189	CASPR1/Contactin-1 Complex	In Process