

Overview

Useful For

Only orderable as a reflex. For more information see:

DMC2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

ENC2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

EPC2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

MDC2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

PCDEC / Pediatric Autoimmune Encephalopathy/CNS Disorder Evaluation, Spinal Fluid

Evaluation of patients suspected of having autoimmune encephalitis using spinal fluid specimens

Method Name

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-EPC2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

-MDC2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

-PCDEC / Pediatric Autoimmune Encephalopathy/CNS Disorder Evaluation, Spinal Fluid

Cell Binding Assay (CBA)

NY State Available

Yes

Specimen

Specimen Type

CSF

Specimen Required

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-PCDEC / Pediatric Autoimmune Encephalopathy/CNS Disorder Evaluation, Spinal Fluid

Specimen Minimum Volume

Test Definition: GL5CC

Metabotropic Glutamate Receptor-5 (mGluR5)
IgG, Cell Based Assay, Spinal Fluid
(Non-Orderable)

1.5 mL

Reject Due To

Gross hemolysis	Reject
Gross lipemia	Reject
Gross icterus	Reject

Specimen Stability Information

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

Clinical & Interpretive

Clinical Information

Metabotropic glutamate receptor-5 (mGluR5-IgG) is a marker of autoimmune encephalitis. Patients who are mGluR5-IgG positive present with neuropsychiatric syndrome, cognitive decline, movement disorders, sleep dysfunction and seizures, which can occur with or without tumor.

Reference Values

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- EPC2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid
- MDC2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid
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Negative

Interpretation

A positive result is consistent with metabotropic glutamate receptor-5 (mGluR5) autoimmunity that manifests as autoimmune encephalitis.

Cautions

A negative result does not exclude the diagnosis of autoimmune encephalitis.

Clinical Reference

1. Spatola M, Sabater L, Planaguma J, et al. Encephalitis with mGluR5 antibodies: Symptoms and antibody effects.

Neurology. 2018;90(22):e1964-e1972. doi:10.1212/WNL.0000000000005614

2. Maudes E, Mannara F, Garcia-Serra A, et al. Human metabotropic glutamate receptor 5 antibodies alter receptor levels and behavior in mice. Ann Neurol. 2022;92(1):81-86. doi:10.1002/ana.26362

3. Lancaster E, Martinez-Hernandez E, Titulaer MJ, et al. Antibodies to metabotropic glutamate receptor 5 in the Ophelia syndrome. Neurology 2011;77(18):1698-1701. doi:10.1212/WNL.0b013e3182364a44

Performance

Method Description

Patient sample is applied to a composite slide containing transfected and non-transfected HEK-293 cells. After incubation and washing, fluorescein-conjugated goat-antihuman IgG is applied to detect the presence of patient IgG binding.(Unpublished Mayo method)

PDF Report

No

Day(s) Performed

Varies

Report Available

5 to 10 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

Test Definition: GL5CC

Metabotropic Glutamate Receptor-5 (mGluR5)
IgG, Cell Based Assay, Spinal Fluid
(Non-Orderable)

86255

LOINC® Information

Test ID	Test Order Name	Order LOINC® Value
GL5CC	mGluR5 Ab CBA, CSF	In Process

Result ID	Test Result Name	Result LOINC® Value
623396	mGluR5 Ab CBA, CSF	In Process