MAYO CLINIC LABORATORIES

Test Definition: PDEIC

Phosphodiesterase 10A (PDE10A) IgG, Tissue Immunofluorescence, Spinal Fluid

Overview

Useful For

Detecting phosphodiesterase 10A (PDE10A)-IgG in cerebrospinal fluid specimens

Evaluation of autoimmune/paraneoplastic neurological syndromes among patients presenting with movement disorders and encephalopathy

Testing Algorithm

If the indirect immunofluorescence (IFA) pattern suggests phosphodiesterase 10A (PDE10A) IgG, then the PDE10A antibody IFA titer will be performed at an additional charge.

Method Name

Only orderable as part of a profile. 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

Indirect Immunofluorescence Assay (IFA)

NY State Available

Yes

Specimen

Specimen Type

CSF

Specimen Required

Only orderable as part of a profile. 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

Reject Due To

Gross hemolysis	Reject

Gross lipemia	Reject
Gross icterus	Reject

Specimen Stability Information

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

Clinical & Interpretive

Clinical Information
Phosphodiesterase 10A (PDE10A) is a marker of paraneoplastic neurological autoimmunity in patients presenting with movement disorders, encephalopathy, and often, cancer.

Reference Values
Only orderable as part of a profile. 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

Negative

Interpretation
A positive result is consistent with phosphodiesterase 10A (PDE10A) autoimmunity that manifests with autoimmune movement disorders or encephalitis. A paraneoplastic cause should be considered.

Cautions
A negative result does not exclude the presence of neurological autoimmunity or cancer. The use of immunosuppressive therapy prior to sample collection may negatively impact the sensitivity of this assay.

Clinical Reference
Zekeridou A, Kryzer T, Guo Y, et al. Phosphodiesterase 10A IgG: a novel biomarker of paraneoplastic neurologic autoimmunity. Neurology. 2019;93(8):e815-e822. doi:10.1212/WNL.0000000000007971

Performance

Method Description
The patient's sample is tested by a standardized immunofluorescence assay that uses a composite frozen section of

mouse cerebellum, kidney, and gut tissues. After incubation with sample and washing, fluorescein-conjugated goat-antihuman IgG is applied. Neuron-specific autoantibodies are identified by their characteristic fluorescence staining patterns. Samples that are scored positive for any neuronal nuclear or cytoplasmic autoantibody are titrated to an endpoint. Interference by coexisting non-neuron-specific autoantibodies can usually be eliminated by serologic absorption.(Honorat JA, Komorowski L, Josephs KA, et al. IgLON5 antibody: Neurological accompaniments and outcomes in 20 patients. Neurol Neuroimmunol Neuroinflamm. 2017;4(5):e385. doi:10.1212/NXI.0000000000000385)

PDF Report
No

Day(s) Performed
Monday through Sunday

Report Available
5 to 10 days

Specimen Retention Time
28 days

Performing Laboratory Location
Rochester

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

LOINC® Information

Test ID	Test Order Name	Order LOINC® Value
PDEIC	PDE10A Ab IFA, CSF	103842-1

Result ID	Test Result Name	Result LOINC® Value
620067	PDE10A Ab IFA, CSF	103842-1