

**Overview****Useful For**

Reporting an end titer result from phosphodiesterase 10A (PDE10A) in serum 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 a reflex. For more information see:

ENS2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Serum

DMS2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Serum

EPS2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Serum

MDS2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Serum

Indirect Immunofluorescence Assay (IFA)

**NY State Available**

Yes

**Specimen****Specimen Type**

Serum

**Specimen Required**

Only orderable as a reflex. For more information see:

ENS2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Serum

DMS2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Serum

EPS2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Serum

MDS2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Serum

**Reject Due To**

Gross hemolysis	Reject
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Thawing**	Cold OK; Warm OK
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

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 a reflex. For more information see:

ENS2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Serum

DMS2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Serum

EPS2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Serum

MDS2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Serum

<1:240

### 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 specimen is tested by a standardized immunofluorescence assay that uses a composite frozen section of mouse cerebellum, kidney, and gut tissues. After incubation with the specimen and washing, fluorescein-conjugated goat-antihuman IgG is applied. Neuron-specific autoantibodies are identified by their characteristic fluorescence staining patterns. Specimens that are scored positive for any neuronal nuclear or cytoplasmic autoantibody are titrated. 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. Published 2017 Jul 18. doi:10.1212/NXI.0000000000000385)

**PDF Report**

No

**Day(s) Performed**

Monday through Sunday

**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**

86256

**LOINC® Information**

Test ID	Test Order Name	Order LOINC® Value
PDETS	PDE10A Ab IFA Titer, S	105523-5

Result ID	Test Result Name	Result LOINC® Value
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## Test Definition: PDETS

Phosphodiesterase 10A (PDE10A) IgG, Tissue  
Immunofluorescence Titer, Serum

620070	PDE10A Ab IFA Titer, S	105523-5
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