

Tripartite Motif-Containing Protein 46 (TRIM46) IgG, Tissue Immunofluorescence Titer, Serum

#### Overview

#### **Useful For**

Reporting an end titer result for tripartite motif-containing protein 46 (TRIM46)-IgG in serum specimens

Evaluation of an autoimmune/paraneoplastic neurological syndrome among patients presenting with cerebellar ataxia, encephalitis, or encephalomyelitis.

## **Testing Algorithm**

If the indirect immunofluorescence (IFA) pattern suggests tripartite motif-containing protein 46 (TRIM46) IgG, then the TRIM46 antibody cell-binding assay (CBA) and TRIM46 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

MAS1 / Myelopathy, 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:

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DMS2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Serum

EPS2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Serum

MDS2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Serum

MAS1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Serum

#### Reject Due To



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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**

Tripartite motif-containing protein 46 (TRIM46-IgG) is a marker of an autoimmune neurological disorder commonly associated with underlying malignancy. Patients commonly present with cerebellar ataxia and neoplasms frequently of neuroendocrine lineage.

#### **Reference Values**

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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

MAS1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Serum

<1:240

## Interpretation

A positive result is consistent with a tripartite motif-containing protein 46 (TRIM46-IgG) associated autoimmune disease of the central nervous system. A paraneoplastic cause should be considered.

#### **Cautions**

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

#### Clinical Reference

- 1. van Coevorden-Hameete MH, van Beuningen SFB, Perrenoud M, et al. Antibodies to TRIM46 are associated with paraneoplastic neurological syndromes. Ann Clin Tran Neurol. 2017;4(9):680-686. doi:10.1002/acn3.396
- 2. Shams'ili S, de Leeuw B, Hulsenboom E, Jaarsma D, Smitt PS. A new paraneoplastic encephalomyelitis autoantibody



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reactive with the axon initial segment. Neurosci Lett. 2009;467(2):169-172. doi:10.1016/j.neulet.2009.10.031 3. Valencia-Sanchez C, Knight AM, Hammami B, et al. TRIM46 autoantibody: expanded neurological phenotype and oncological associations (1657). Neurology. 2021;96(15 Supplement). doi:10.1212/WNL.96.15\_supplement.1657

## **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.000000000000385)

## **PDF Report**

No

#### Day(s) Performed

Monday through Sunday

#### Report Available

5 to 10 days

### Specimen Retention Time

28 days

#### **Performing Laboratory Location**

Mayo Clinic Laboratories - Rochester Main Campus

## Fees & Codes

#### **Fees**

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

#### **Test Classification**

This test was developed and its performance characteristics determined by Mayo Clinic in a manner consistent with CLIA



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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
T46TS	TRIM46 Ab IFA Titer, S	105527-6

Result ID	Test Result Name	Result LOINC® Value
616447	TRIM46 Ab IFA Titer, S	105527-6