



## Test Definition: T46TS

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

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### 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:

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

#### 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

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

<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

- 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
- Shams'ili S, de Leeuw B, Hulsenboom E, Jaarsma D, Smitt PS. A new paraneoplastic encephalomyelitis autoantibody reactive with the axon initial segment. *Neurosci Lett.* 2009;467(2):169-172. doi:10.1016/j.neulet.2009.10.031

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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.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.

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### 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