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**Overview****Useful For**

Detecting tripartite motif-containing protein 46 (TRIM46)-IgG by cell-binding assay using 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 TRIM46 antibody cell-binding assay and 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

Cell Binding Assay (CBA)

**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**

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

Negative

**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. Sham'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):169-72. doi:10.1016/j.neulet.2009.10.031
3. Valencia-Sanchez C, Knight AM, Hammami B, et al. TRIM46 autoantibody: expanded neurological phenotype and

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oncological associations (1657). Neurology. 2021;96(15 Supplement)

## Performance

### Method Description

Patient specimen is applied to a composite slide containing transfected and nontransfected HEK-293 cells. After incubation and washing, fluorescein-conjugated goat-antihuman IgG is applied to detect the presence of patient IgG binding. (Package insert: IIFT: Neurology Mosaics, Instructions for the indirect immunofluorescence test. EUROIMMUN; FA\_112d-1\_A\_UK\_C13, 02/2019)

### 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

86255

### LOINC® Information

## Test Definition: T46CS

Tripartite Motif-Containing Protein 46  
(TRIM46) IgG, Cell Binding Assay, Serum

Test ID	Test Order Name	Order LOINC® Value
T46CS	TRIM46 Ab CBA, S	105525-0

Result ID	Test Result Name	Result LOINC® Value
616449	TRIM46 Ab CBA, S	105525-0