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## Overview

### Useful For

Reporting an end-titer result for tripartite motif-containing protein 46 (TRIM46)-IgG in cerebrospinal fluid 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 (CBA) and IFA titer will be performed at an additional charge.

### Method Name

Only orderable as a reflex. For more information see:

ENC2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

DMC2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

EPC2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

MDC2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

MAC1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

Indirect Immunofluorescence Assay (IFA)

### NY State Available

Yes

## Specimen

### Specimen Type

CSF

### Specimen Required

Only orderable as a reflex. For more information see:

ENC2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

DMC2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

EPC2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

MDC2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

MAC1 / Myelopathy, 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	Refrigerated (preferred)	28 days	
	Frozen	28 days	
	Ambient	72 hours	

## 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:

ENC2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

DMC2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

EPC2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

MDC2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

MAC1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

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### 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

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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 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.

## Test Definition: T46TC

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

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### CPT Code Information

86256

### LOINC® Information

Test ID	Test Order Name	Order LOINC® Value
T46TC	TRIM46 Ab IFA Titer, CSF	105526-8

Result ID	Test Result Name	Result LOINC® Value
616448	TRIM46 Ab IFA Titer, CSF	105526-8