



Test Definition: T46TC

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

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:

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DMC2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

EPC2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

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

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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
CSF	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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EPC2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

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

MAC1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

<1:2

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

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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Titer, Spinal Fluid

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