MAYO CLINIC LABORATORIES

Test Definition: T46CC

Tripartite Motif-Containing Protein 46 (TRIM46) IgG, Cell Binding Assay, Spinal Fluid (Non-Orderable)

Overview

Useful For

Only orderable as 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

Detecting tripartite motif-containing protein 46 (TRIM46)-IgG by cell-binding assay using 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 and IFA titer will be performed at an additional charge.

Method Name

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DMC2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid
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MDC2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid
MAC1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

Cell Binding Assay (CBA)

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
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	
	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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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

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 oncological associations (1657). Neurology. 2021;96(15 Supplement). doi:10.1212/WNL.96.15_supplement.1657

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, Lubeck, Germany, 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.

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Tripartite Motif-Containing Protein 46 (TRIM46) IgG, Cell Binding Assay, Spinal Fluid (Non-Orderable)

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 ID	Test Order Name	Order LOINC® Value
T46CC	TRIM46 Ab CBA, CSF	105524-3

Result ID	Test Result Name	Result LOINC® Value
616450	TRIM46 Ab CBA, CSF	105524-3