



Test Definition: MAC1

Myelopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

Overview

Useful For

Evaluating patients with suspected autoimmune myelopathy, myelitis, and paraneoplastic myelopathy using spinal fluid specimens

Profile Information

| Test Id | Reporting Name | Available Separately | Always Performed |
|---------|-------------------------------------|----------------------|------------------|
| MCI1 | Autoimmune Myelopathy Interp, CSF | No | Yes |
| AMPHC | Amphiphysin Ab, CSF | No | Yes |
| AGN1C | Anti-Glial Nuclear Ab, Type 1 | No | Yes |
| ANN1C | Anti-Neuronal Nuclear Ab, Type 1 | No | Yes |
| ANN2C | Anti-Neuronal Nuclear Ab, Type 2 | No | Yes |
| ANN3C | Anti-Neuronal Nuclear Ab, Type 3 | No | Yes |
| APBIC | AP3B2 IFA, CSF | No | Yes |
| CRMWC | CRMP-5-IgG Western Blot, CSF | Yes | Yes |
| DPPCC | DPPX Ab CBA, CSF | No | Yes |
| GABCC | GABA-B-R Ab CBA, CSF | No | Yes |
| GD65C | GAD65 Ab Assay, CSF | Yes | Yes |
| GFAIC | GFAP IFA, CSF | No | Yes |
| GL11C | mGluR1 Ab IFA, CSF | No | Yes |
| NCDIC | Neurochondrin IFA, CSF | No | Yes |
| NIFIC | NIF IFA, CSF | No | Yes |
| NMOFC | NMO/AQP4 FACS, CSF | Yes | Yes |
| PCA1C | Purkinje Cell Cytoplasmic Ab Type 1 | No | Yes |
| PCA2C | Purkinje Cell Cytoplasmic Ab Type 2 | No | Yes |
| SP71C | Septin-7 IFA, CSF | No | Yes |
| T461C | TRIM46 Ab IFA, CSF | No | Yes |

Reflex Tests

| Test Id | Reporting Name | Available Separately | Always Performed |
|---------|----------------|----------------------|------------------|
|---------|----------------|----------------------|------------------|

| | | | |
|-------|---------------------------------|----|----|
| AGNBC | AGNA-1 Immunoblot, CSF | No | No |
| AINCC | Alpha Internexin CBA, CSF | No | No |
| AMIBC | Amphiphysin Immunoblot, CSF | No | No |
| AN1BC | ANNA-1 Immunoblot, CSF | No | No |
| AN2BC | ANNA-2 Immunoblot, CSF | No | No |
| DPPTC | DPPX Ab IFA Titer, CSF | No | No |
| GABIC | GABA-B-R Ab IF Titer Assay, CSF | No | No |
| GFACC | GFAP CBA, CSF | No | No |
| GFATC | GFAP IFA Titer, CSF | No | No |
| GL1CC | mGluR1 Ab CBA, CSF | No | No |
| GL1TC | mGluR1 Ab IFA Titer, CSF | No | No |
| NFHCC | NIF Heavy Chain CBA, CSF | No | No |
| NIFTC | NIF IFA Titer, CSF | No | No |
| NFLCC | NIF Light Chain CBA, CSF | No | No |
| NMOTC | NMO/AQP4 FACS Titer, CSF | No | No |
| PC1BC | PCA-1 Immunoblot, CSF | No | No |
| AGNTC | AGNA-1 Titer, CSF | No | No |
| AN1TC | ANNA-1 Titer, CSF | No | No |
| AN2TC | ANNA-2 Titer, CSF | No | No |
| AN3TC | ANNA-3 Titer, CSF | No | No |
| APBCC | AP3B2 CBA, CSF | No | No |
| APBTC | AP3B2 IFA Titer, CSF | No | No |
| APHTC | Amphiphysin Ab Titer, CSF | No | No |
| CRMTC | CRMP-5-IgG Titer, CSF | No | No |
| NCDCC | Neurochondrin CBA, CSF | No | No |
| NCDTC | Neurochondrin IFA Titer, CSF | No | No |
| PC1TC | PCA-1 Titer, CSF | No | No |
| PC2TC | PCA-2 Titer, CSF | No | No |
| SP7CC | Septin-7 CBA, CSF | No | No |
| SP7TC | Septin-7 IFA Titer, CSF | No | No |
| T46CC | TRIM46 Ab CBA, CSF | No | No |
| T46TC | TRIM46 Ab IFA Titer, CSF | No | No |

Testing Algorithm

If the indirect immunofluorescence assay (IFA) pattern suggests anti-glial nuclear antibody (AGNA-1), then the AGNA-1 immunoblot and AGNA-1 IFA titer will be performed at an additional charge.

If the IFA pattern suggests amphiphysin antibody, then the amphiphysin immunoblot and amphiphysin IFA titer will be performed at an additional charge.

If the IFA pattern suggests anti-neuronal nuclear antibody type 1 (ANNA-1), then the ANNA-1 immunoblot, ANNA-1 IFA titer, and ANNA-2 immunoblot will be performed at an additional charge.

If the IFA pattern suggests ANNA-2 antibody, then the ANNA-2 immunoblot, ANNA-2 IFA titer, and ANNA-1 immunoblot will be performed at an additional charge.

If the client requests or the IFA pattern suggests ANNA-3 antibodies, then the ANNA-3 IFA titer will be performed at an additional charge.

If the IFA pattern suggests adaptor protein 3 beta 2 (AP3B2) antibodies, then the AP3BC cell-binding assay (CBA) and AP3BC IFA titer will be performed at an additional charge.

If the collapsin response-mediator protein 5 (CRMP-5)-IgG Western blot is positive, then the CRMP-5-IgG IFA titer will be performed at an additional charge.

If the IFA pattern suggests Purkinje cell cytoplasmic antibody type 1 (PCA-1), then the PCA-1 immunoblot and PCA-1 IFA titer will be performed at an additional charge.

If the IFA pattern suggests PCA-2 antibody, then the PCA-2 IFA titer will be performed at an additional charge.

If the gamma-aminobutyric acid B (GABA-B) receptor antibody CBA result is positive, then the GABA-B-receptor antibody IFA titer will be performed at an additional charge.

If the dipeptidyl-peptidase-like protein-6 (DPPX) antibody CBA result is positive, then the DPPX antibody IFA titer will be performed at an additional charge.

If the IFA pattern suggests metabotropic glutamate receptor 1 (mGluR1) antibody, then the mGluR1 antibody CBA and mGluR1 antibody IFA titer will be performed at an additional charge.

If the IFA pattern suggests glial fibrillary acidic protein (GFAP) antibody, then the GFAP antibody CBA and GFAP antibody IFA titer will be performed at an additional charge.

If the neuromyelitis optica/aquaporin-4-IgG (NMO/AQP4-IgG) fluorescence-activated cell sorting (FACS) screen assay requires further investigation, then the NMO/AQP4-IgG FACS titration assay will be performed at an additional charge.

If the IFA pattern suggests neuronal intermediate filament (NIF) antibody, then the alpha internexin CBA, NIF heavy chain CBA, NIF light chain CBA, and NIF antibody IFA titer will be performed at an additional charge.

If the IFA pattern suggests neurochondrin antibody, then the neurochondrin antibody CBA and neurochondrin IFA titer will be performed at an additional charge.

If the IFA pattern suggests septin 7 antibody, then the septin 7 CBA and septin 7 IFA titer will be performed at an additional charge.

If the IFA pattern suggests tripartite motif-containing protein 46 (TRIM46) antibody, then the TRIM46 antibody CBA and TRIM46 IFA titer will be performed at an additional charge.

For more information see:

[Autoimmune/Paraneoplastic Myelopathy Evaluation Algorithm-Spinal Fluid](#)

[Central Nervous System Demyelinating Disease Diagnostic Algorithm](#)

Special Instructions

- [Autoimmune/Paraneoplastic Myelopathy Evaluation Algorithm-Spinal Fluid](#)
- [Central Nervous System Demyelinating Disease Diagnostic Algorithm](#)

Method Name

MCI1: Medical Interpretation

AGN1C, AGNTC, AMPHC, APHTC, ANN1C, AN1TC, ANN2C, AN2TC, ANN3C, AN3TC, APBIC, APBTC, CRMTC, DPPTC, GABIC, GFAIC, GFATC, GL1IC, GL1TC, NCDIC, NCDTC, NIFIC, NIFTC, PCA1C, PC1TC, PCA2C, PC2TC, SP7IC, SP7TC, T46IC, T46TC: Indirect Immunofluorescence Assay (IFA)

GD65C: Radioimmunoassay (RIA)

CRMWC: Western Blot (WB)

AGNBC, AMIBC, AN1BC, AN2BC, PC1BC: Immunoblot (IB)

NMOFC, NMOTC: Flow Cytometry (FCM)

APBCC, DPPCC, GABCC, GFACC, GL1CC, NCDCC, AINCC, NFLCC, NFHCC, SP7CC, T46CC: Cell-Binding Assay (CBA)

NY State Available

Yes

Specimen

Specimen Type

CSF

Ordering Guidance

Multiple neurological phenotype-specific autoimmune/paraneoplastic evaluations are available. For more information as well as phenotype-specific testing options, see [Autoimmune Neurology Test Ordering Guide](#).

When more than one evaluation is ordered on the same order number, the duplicate test will be canceled.

For a list of antibodies performed with each evaluation, see [Autoimmune Neurology Antibody Matrix](#).

Necessary Information

Provide the following information:

- Relevant clinical information
- Ordering healthcare professional's name, phone number, mailing address, and email address

Specimen Required

Container/Tube: Sterile vial

Preferred: Collection vial number 1

Acceptable: Any collection vial

Specimen Volume: 4 mL

Forms

If not ordering electronically, complete, print, and send a [Neurology Specialty Testing Client Test Request \(T732\)](#) with the specimen.

Specimen Minimum Volume

2 mL

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

Patients with autoimmune myelopathy present with subacute onset and rapid progression of spinal cord symptoms with one or more of the following: weakness, gait difficulties, loss of sensation, neuropathic pain, and bowel and bladder dysfunction. Clinical history and examination, spinal cord magnetic resonance imaging, and cerebrospinal fluid (CSF) testing may provide clues to an autoimmune diagnosis. Autoimmune myelopathy evaluation of both serum and CSF can assist in the diagnosis (paraneoplastic or idiopathic autoimmune) and aid distinction from other causes of myelopathy

(multiple sclerosis, sarcoidosis, vascular disease). Early testing may assist in early diagnosis of occult cancer, prompt initiation of immune therapies, or both.

Reference Values

| Test ID | Reporting name | Methodology* | Reference value |
|---------|-------------------------------------|------------------------|--|
| MCI1 | Autoimmune Myelopathy Interp, CSF | Medical interpretation | Interpretive report |
| AMPHC | Amphiphysin Ab, CSF | IFA | Negative |
| AGN1C | Anti-Glial Nuclear Ab, Type 1 | IFA | Negative |
| ANN1C | Anti-Neuronal Nuclear Ab, Type 1 | IFA | Negative |
| ANN2C | Anti-Neuronal Nuclear Ab, Type 2 | IFA | Negative |
| ANN3C | Anti-Neuronal Nuclear Ab, Type 3 | IFA | Negative |
| APBIC | AP3B2 IFA, CSF | IFA | Negative |
| CRMWC | CRMP-5-IgG Western Blot, CSF | WB | Negative |
| DPPCC | DPPX Ab CBA, CSF | CBA | Negative |
| GABCC | GABA-B-R Ab CBA, CSF | CBA | Negative |
| GD65C | GAD65 Ab Assay, CSF | RIA | < or =0.02 nmol/L Reference values apply to all ages. |
| GFAIC | GFAP IFA, CSF | IFA | Negative |
| GL11C | mGluR1 Ab IFA, CSF | IFA | Negative |
| NCDIC | Neurochondrin IFA, CSF | IFA | Negative |
| NIFIC | NIF IFA, CSF | IFA | Negative |
| NMOFC | NMO/AQP4 FACS, CSF | FCM | Negative |
| PCA1C | Purkinje Cell Cytoplasmic Ab Type 1 | IFA | Negative |
| PCA2C | Purkinje Cell Cytoplasmic Ab Type 2 | IFA | Negative |
| SP7IC | Septin-7 IFA, CSF | IFA | Negative |
| T46IC | TRIM46 IFA, CSF | IFA | Negative |

Reflex Information:

| Test ID | Reporting name | Methodology* | Reference value |
|---------|-----------------------------|--------------|-----------------|
| AGNBC | AGNA-1 Immunoblot, CSF | IB | Negative |
| AGNTC | AGNA-1 Titer, CSF | IFA | <1:2 |
| AINCC | Alpha Internexin CBA, CSF | CBA | Negative |
| AMIBC | Amphiphysin Immunoblot, CSF | IB | Negative |
| AN1BC | ANNA-1 Immunoblot, CSF | IB | Negative |
| AN1TC | ANNA-1 Titer, CSF | IFA | <1:2 |

| | | | |
|-------|---------------------------------|-----|----------|
| AN2BC | ANNA-2 Immunoblot, CSF | IB | Negative |
| AN2TC | ANNA-2 Titer, CSF | IFA | <1:2 |
| AN3TC | ANNA-3 Titer, CSF | IFA | <1:2 |
| APBCC | AP3B2 CBA, CSF | CBA | Negative |
| APBTC | AP3B2 IFA Titer, CSF | IFA | <1:2 |
| APHTC | Amphiphysin Ab Titer, CSF | IFA | <1:2 |
| CRMTC | CRMP-5-IgG Titer, CSF | IFA | <1:2 |
| DPPTC | DPPX Ab IFA Titer, CSF | IFA | <1:2 |
| GABIC | GABA-B-R Ab IF Titer Assay, CSF | IFA | <1:2 |
| GFACC | GFAP CBA, CSF | CBA | Negative |
| GFATC | GFAP IFA Titer, CSF | IFA | <1:2 |
| GL1CC | mGluR1 Ab CBA, CSF | CBA | Negative |
| GL1TC | mGluR1 Ab IFA Titer, CSF | IFA | <1:2 |
| NCDCC | Neurochondrin CBA, CSF | CBA | Negative |
| NCDTC | Neurochondrin IFA Titer, CSF | IFA | <1:2 |
| NFHCC | NIF Heavy Chain CBA, CSF | CBA | Negative |
| NIFTC | NIF IFA Titer, CSF | IFA | <1:2 |
| NFLCC | NIF Light Chain CBA, CSF | CBA | Negative |
| NMOTC | NMO/AQP4 FACS Titer, CSF | FCM | <1:2 |
| PC1BC | PCA-1 Immunoblot, CSF | IB | Negative |
| PC1TC | PCA-1 Titer, CSF | IFA | <1:2 |
| PC2TC | PCA-2 Titer, CSF | IFA | <1:2 |
| SP7CC | Septin-7 CBA, CSF | CBA | Negative |
| SP7TC | Septin-7 IFA Titer, CSF | IFA | <1:2 |
| T46CC | TRIM46 CBA, CSF | CBA | Negative |
| T46TC | TRIM46 IFA Titer, CSF | IFA | <1:2 |

***Methodology Abbreviations:**

Immunofluorescence assay (IFA)

Cell-binding assay (CBA)

Flow cytometry (FCM)

Radioimmunoassay (RIA)

Immunoblot (IB)

Western blot (WB)

Neuron-restricted patterns of IgG staining that do not fulfill criteria for ANNA-1, ANNA-2, ANNA-3, CRMP-5-IgG, PCA-1, or PCA-2 may be reported as "unclassified anti-neuronal IgG." Complex patterns that include nonneuronal elements may be reported as "uninterpretable."

Interpretation

A positive result is consistent with a diagnosis of autoimmune myelopathy in the appropriate clinical context.

Cautions

Negative results do not exclude a diagnosis of autoimmune myelopathy.

Clinical Reference

1. Dubey D, Pittock SJ, Krecke KN, et al. Clinical, radiologic, and prognostic features of myelitis associated with myelin oligodendrocyte glycoprotein autoantibody. *JAMA Neurol.* 2019;76(3):301-309. doi:10.1001/jamaneurol.2018.4053
2. Zaleski NL, Flanagan EP. Autoimmune and paraneoplastic myelopathies. *Semin Neurol.* 2018;38(3):278-289. doi:10.1055/s-0038-1660856
3. Flanagan EP, Hinson SR, Lennon VA, et al. Glial fibrillary acidic protein immunoglobulin G as biomarker of autoimmune astrocytopathy: Analysis of 102 patients. *Ann Neurol.* 2017;81(2):298-309. doi:10.1002/ana.24881
4. Keegan BM, Pittock SJ, Lennon VA. Autoimmune myelopathy associated with collapsin response-mediator protein-5 immunoglobulin G. *Ann Neurol.* 2008;63(4):531-534. doi:10.1002/ana.21324
5. Weinschenker BG, Wingerchuk DM, Vukusic S, et al. Neuromyelitis optica IgG predicts relapse after longitudinally extensive transverse myelitis. *Ann Neurol.* 2006;59(3):566-569. doi:10.1002/ana.20770

Performance**Method Description****Cell-Binding Assay:**

Patient sample is applied to a composite slide containing transfected and nontransfected EU90 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, 02/25/2019)

Indirect Immunofluorescence Assay:

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)

Radioimmunoassay:

(125)I-labeled recombinant human antigens or labeled receptors are incubated with patient specimen. After incubation, anti-human IgG is added to form an immunoprecipitate. The amount of (125)I-labeled antigen in the immunoprecipitate is measured using a gamma-counter. The amount of gamma emission in the precipitate is proportional to the amount of antigen-specific IgG in the sample. Results are reported as units of precipitated antigen (nmol) per liter of patient sample. (Griesmann GE, Kryzer TJ, Lennon VA. Autoantibody profiles of myasthenia gravis and Lambert-Eaton myasthenic syndrome. In: Rose NR, Hamilton RG, et al, eds. *Manual of Clinical and Laboratory Immunology*. 6th ed. ASM Press, 2002:1005-1012; Walikonis JE, Lennon VA. Radioimmunoassay for glutamic acid decarboxylase [GAD65] autoantibodies as a diagnostic aid for stiff-man syndrome and a correlate of susceptibility to type 1 diabetes mellitus. *Mayo Clin Proc.* 1998;73[12]:1161-1166. doi:10.4065/73.12.1161; Jones AL, Flanagan EP, Pittock SJ, et al. Responses to and outcomes of

treatment of autoimmune cerebellar ataxia in adults. *JAMA Neurol.* 2015;72[11]:1304-1312.
doi:10.1001/jamaneurol.2015.2378)

Western Blot:

Neuronal antigens extracted aqueously from adult rat cerebellum, full-length recombinant human collapsin response-mediator protein-5 (CRMP-5) or full-length recombinant human amphiphysin protein is denatured, reduced, and separated by electrophoresis on 10% polyacrylamide gel. IgG is detected autoradiographically by enhanced chemiluminescence.(Yu Z, Kryzer TJ, Griesmann GE, Kim K, Benarroch EE, Lennon VA. CRMP-5 neuronal autoantibody: marker of lung cancer and thymoma-related autoimmunity. *Ann Neurol.* 2001;49[2]:145-154; Dubey D, Jitrapaikulsan J, Bi H, et al. Amphiphysin-IgG autoimmune neuropathy: a recognizable clinicopathologic syndrome. *Neurology.* 2019;93[20]:e1873-e1880. doi:10.1212/WNL.00000000000008472)

Immunoblot:

All steps are performed at room temperature (18-28 degrees C) utilizing the EUROBlot One instrument. Diluted patient samples (1:12.5) are added to test strips (strips containing recombinant antigen manufactured and purified using biochemical methods) in individual channels and incubated for 30 minutes. Positive samples will bind to the purified recombinant antigen, and negative samples will not bind. Strips are washed to remove unbound antibodies and then incubated with anti-human IgG antibodies (alkaline phosphatase-labeled) for 30 minutes. The strips are again washed to remove unbound anti-human IgG antibodies, and nitroblue tetrazolium chloride/5-bromo-4-chloro-3-indolylphosphate substrate is added. Alkaline phosphatase enzyme converts the soluble substrate into a colored insoluble product on the membrane to produce a black band. Strips are digitized via picture capture on the EUROBlot One instrument and evaluated with the EUROLineScan software.(O'Connor K, Waters P, Komorowski L, et al. GABAA receptor autoimmunity: a multicenter experience. *Neurol Neuroimmunol Neuroinflamm.* 2019;6[3]:e552. doi:10.1212/NXI.0000000000000552)

Fluorescence-Activated Cell Sorting Assay/Flow Cytometry:

Human embryonic kidney cells (HEK 293) are transfected transiently with a plasmid (pIRES2-*Aequorea coerulea* green fluorescent protein [AcGFP]) encoding both green fluorescent protein (AcGFP) and AQP4-M1. After 36 hours, a mixed population of cells (transfected expressing AQP4 on the surface and AcGFP in the cytoplasm and nontransfected lacking AQP4 and AcGFP) are lifted and resuspended in live cell binding buffer. Patient specimen is then added to cells at a 1 in 5 screening dilution. After incubation and washing, the cells are resuspended in secondary antibody (AlexaFluor 647-conjugated goat-antihuman IgG; 1:2000 in LCBB), held on ice, washed, fixed with 4% paraformaldehyde, and analyzed by flow cytometry (BD FACSCanto; Becton, Dickinson, and Co). Two populations are gated based on AcGFP expression: positive (high AQP4 expression) and negative (low or no AQP4 expression). The median Alexafluor 647 fluorescence intensity (MFI) for the AcGFP-positive population indicates the relative abundance of human IgG potentially bound to AQP4 surface epitopes; MFI for the GFP-negative population indicated nonspecifically-bound IgG. The IgG binding index is calculated as the ratio of the average MFI for duplicate aliquots of each cell population (MFI GFP positive/MFI GFP negative). We established conservative cutoff IgG binding index values of 2.00 for M1-FACS.(Fryer JP, Lennon VP, Pittock SJ, et al. AQP4 autoantibody assay performance in clinical laboratory service. *Neurol Neuroimmunol Neuroinflamm.* 2014;1[1]:e11. doi:10.1212/NXI.0000000000000011)

If the fluorescence-activated cell sorting (FACS) assay is positive at screening dilution, the FACS titer assay is performed at an additional charge. The patient sample is titrated to endpoint. The dilution where the IgG binding index is greater than or equal to 2 is considered the endpoint dilution. If a patient is positive at a 1:5 dilution but negative at 1:10 dilution, the endpoint will be reported as 5.

PDF Report

No

Day(s) Performed

Profile tests: Monday through Sunday; Reflex tests: Varies

Report Available

8 to 12 days

Specimen Retention Time

28 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 x 16

86053

86341

84182

84182 AGNBC (if appropriate)

86256 AGNTC (if appropriate)

86255 AINCC (if appropriate)

84182 AMIBC (if appropriate)

84182 AN1BC (if appropriate)

86256 AN1TC (if appropriate)

84182 AN2BC (if appropriate)

86256 AN2TC (if appropriate)

86256 AN3TC (if appropriate)

86255 APBCC (if appropriate)

86256 APBTC (if appropriate)

86256 APHTC (if appropriate)
 86256 CRMTC (if appropriate)
 86256 DPPTC (if appropriate)
 86256 GABIC (if appropriate)
 86255 GFACC (if appropriate)
 86256 GFATC (if appropriate)
 86255 GL1CC (if appropriate)
 86256 GL1TC (if appropriate)
 86255 NCDCC (if appropriate)
 86256 NCDTC (if appropriate)
 86255 NFHCC (if appropriate)
 86255 NFLCC (if appropriate)
 86256 NIFTC (if appropriate)
 86053 NMOTC (if appropriate)
 84182 PC1BC (if appropriate)
 86256 PC1TC (if appropriate)
 86256 PC2TC (if appropriate)
 86255 SP7CC (if appropriate)
 86256 SP7TC (if appropriate)
 86255 T46CC (if appropriate)
 86256 T46TC (if appropriate)

LOINC® Information

| Test ID | Test Order Name | Order LOINC® Value |
|---------|----------------------------------|--------------------|
| MAC1 | Myelopathy, Autoimm/Paraneo, CSF | 94353-0 |

| Result ID | Test Result Name | Result LOINC® Value |
|-----------|-----------------------------------|---------------------|
| 89079 | AGNA-1, CSF | 90827-7 |
| 5906 | Amphiphysin Ab, CSF | 90815-2 |
| 3852 | ANNA-1, CSF | 44768-0 |
| 7472 | ANNA-2, CSF | 56959-0 |
| 21633 | ANNA-3, CSF | 90836-8 |
| 3988 | PCA-1, CSF | 90841-8 |
| 21632 | PCA-2, CSF | 90843-4 |
| 21747 | CRMP-5-IgG Western Blot, CSF | 53707-6 |
| 21702 | GAD65 Ab Assay, CSF | 94359-7 |
| 61515 | GABA-B-R Ab CBA, CSF | 93426-5 |
| 38325 | NMO/AQP4-IgG FACS, CSF | 46718-3 |
| 64927 | mGluR1 Ab IFA, CSF | 94361-3 |
| 64934 | DPPX Ab CBA, CSF | 94283-9 |
| 605156 | GFAP IFA, CSF | 94360-5 |
| 605128 | Autoimmune Myelopathy Interp, CSF | 69048-7 |
| 618901 | IFA Notes | 48767-8 |

Test Definition: MAC1

Myelopathy, Autoimmune/Paraneoplastic
Evaluation, Spinal Fluid

| | | |
|--------|------------------------|----------|
| 606965 | NIF IFA, CSF | 96490-8 |
| 615862 | AP3B2 IFA, CSF | 101907-4 |
| 615866 | Neurochondrin IFA, CSF | 101451-3 |
| 615874 | Septin-7 IFA, CSF | 101464-6 |
| 616446 | TRIM46 Ab IFA, CSF | 103843-9 |