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**Reporting Title:** Epilepsy, Autoimm/Paraneo, CSF**Performing Location:** Rochester**Ordering Guidance:**

Multiple neurological phenotype-specific autoimmune/paraneoplastic evaluations are available. For more information as well as phenotype-specific testing options, refer to Autoimmune Neurology Test Ordering Guide

For a list of antibodies performed with each evaluation, see Autoimmune Neurology Antibody Matrix.

**Necessary Information:**

Provide the following information:

- Relevant clinical information
- Ordering provider name, phone number, mailing address, and e-mail address

**Specimen Requirements:**

Collection Container/Tube: Sterile vial

Specimen Volume: 4 mL

**Specimen Minimum Volume:**

2 mL

**Forms:**

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

| Specimen Type | Temperature              | Time     | Special Container |
|---------------|--------------------------|----------|-------------------|
| CSF           | Refrigerated (preferred) | 28 days  |                   |
|               | Frozen                   | 28 days  |                   |
|               | Ambient                  | 72 hours |                   |

## Result Codes:

| Result ID | Reporting Name                                          | Type         | Unit   | LOINC®   |
|-----------|---------------------------------------------------------|--------------|--------|----------|
| 34258     | Epilepsy, Interpretation, CSF                           | Alphanumeric |        | 69048-7  |
| 618897    | IFA Notes                                               | Alphanumeric |        | 48767-8  |
| 61514     | AMPA-R Ab CBA, CSF                                      | Alphanumeric |        | 93491-9  |
| 5906      | Amphiphysin Ab, CSF                                     | Alphanumeric |        | 90815-2  |
| 89079     | AGNA-1, CSF                                             | Alphanumeric |        | 90827-7  |
| 3852      | ANNA-1, CSF                                             | Alphanumeric |        | 44768-0  |
| 7472      | ANNA-2, CSF                                             | Alphanumeric |        | 56959-0  |
| 21633     | ANNA-3, CSF                                             | Alphanumeric |        | 90836-8  |
| 64282     | CASPR2-IgG CBA, CSF                                     | Alphanumeric |        | 94286-2  |
| 21650     | CRMP-5-IgG, CSF                                         | Alphanumeric |        | 63216-6  |
| 64929     | DPPX Ab IFA, CSF                                        | Alphanumeric |        | 82989-5  |
| 61515     | GABA-B-R Ab CBA, CSF                                    | Alphanumeric |        | 93426-5  |
| 21702     | GAD65 Ab Assay, CSF<br><b>Also used by tests: GD65C</b> | Numeric      | nmol/L | 94359-7  |
| 605156    | GFAP IFA, CSF                                           | Alphanumeric |        | 94360-5  |
| 64280     | LG11-IgG CBA, CSF                                       | Alphanumeric |        | 94288-8  |
| 64927     | mGluR1 Ab IFA, CSF                                      | Alphanumeric |        | 94361-3  |
| 615866    | Neurochondrin IFA, CSF                                  | Alphanumeric |        | 101451-3 |
| 61513     | NMDA-R Ab CBA, CSF                                      | Alphanumeric |        | 93502-3  |
| 21631     | PCA-Tr, CSF                                             | Alphanumeric |        | 90845-9  |
| 21632     | PCA-2, CSF                                              | Alphanumeric |        | 90843-4  |

LOINC and CPT codes are provided by the performing laboratory.

## Supplemental Report:

No

## Components:

| Test ID | Reporting Name                       | CPT Units | CPT Code | Always Performed | Orderable Separately |
|---------|--------------------------------------|-----------|----------|------------------|----------------------|
| AEPCI   | Epilepsy, Interpretation, CSF        |           |          | Yes              | No                   |
| AMPCC   | AMPA-R Ab CBA, CSF                   |           |          | Yes              | No                   |
| AMPHC   | Amphiphysin Ab, CSF                  |           |          | Yes              | No                   |
| AGN1C   | Anti-Glial Nuclear Ab, Type 1        |           |          | Yes              | No                   |
| ANN1C   | Anti-Neuronal Nuclear Ab, Type 1     |           |          | Yes              | No                   |
| ANN2C   | Anti-Neuronal Nuclear Ab, Type 2     |           |          | Yes              | No                   |
| ANN3C   | Anti-Neuronal Nuclear Ab, Type 3     |           |          | Yes              | No                   |
| CS2CC   | CASPR2-IgG CBA, CSF                  |           |          | Yes              | No                   |
| CRMC    | CRMP-5-IgG, CSF                      |           |          | Yes              | No                   |
| DPPIC   | DPPX Ab IFA, CSF                     |           |          | Yes              | No                   |
| GABCC   | GABA-B-R Ab CBA, CSF                 |           |          | Yes              | No                   |
| GD65C   | GAD65 Ab Assay, CSF                  |           |          | Yes              | Yes                  |
| GFAIC   | GFAP IFA, CSF                        |           |          | Yes              | No                   |
| LG1CC   | LGI1-IgG CBA, CSF                    |           |          | Yes              | No                   |
| GL1IC   | mGluR1 Ab IFA, CSF                   |           |          | Yes              | No                   |
| NCDIC   | Neurochondrin IFA, CSF               |           |          | Yes              | No                   |
| NMDCC   | NMDA-R Ab CBA, CSF                   |           |          | Yes              | No                   |
| PCTRC   | Purkinje Cell Cytoplasmic Ab Type Tr |           |          | Yes              | No                   |
| PCA2C   | Purkinje Cell Cytoplasmic Ab Type 2  |           |          | Yes              | No                   |

## CPT Code Information:

86255x17  
 86341 x1  
 84182-AGNBC (if appropriate)  
 86256 AGNTC (if appropriate)  
 86256-AMPIC (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)  
 86256 APHTC (if appropriate)  
 86256 CRMTC (if appropriate)

84182-CRMWC (if appropriate)  
 86255-DPPCC (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)  
 86256-NMDIC (if appropriate)  
 86256 PC2TC (if appropriate)  
 84182-PCTBC (if appropriate)  
 86256 PCTTC (if appropriate)

### Reflex Tests:

| Test ID | Reporting Name                  | CPT Units | CPT Code | Always Performed | Orderable Separately |
|---------|---------------------------------|-----------|----------|------------------|----------------------|
| AGNBC   | AGNA-1 Immunoblot, CSF          |           |          | No               | No                   |
| AMPIC   | AMPA-R Ab IF Titer Assay, CSF   |           |          | No               | No                   |
| AMIBC   | Amphiphysin Immunoblot, CSF     |           |          | No               | No                   |
| AN1BC   | ANNA-1 Immunoblot, CSF          |           |          | No               | No                   |
| AN2BC   | ANNA-2 Immunoblot, CSF          |           |          | No               | No                   |
| CRMWC   | CRMP-5-IgG Western Blot, CSF    |           |          | No               | Yes                  |
| DPPCC   | DPPX Ab CBA, 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                   |
| NMDIC   | NMDA-R Ab IF Titer Assay, CSF   |           |          | No               | No                   |
| PCTBC   | PCA-Tr Immunoblot, CSF          |           |          | No               | No                   |
| AGNTC   | AGNA-1 Titer, CSF               |           |          | No               | No                   |
| AN1TC   | ANNA-1 Titer, CSF               |           |          | No               | No                   |

| Test ID | Reporting Name               | CPT Units | CPT Code | Always Performed | Orderable Separately |
|---------|------------------------------|-----------|----------|------------------|----------------------|
| AN2TC   | ANNA-2 Titer, CSF            |           |          | No               | No                   |
| AN3TC   | ANNA-3 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                   |
| PC2TC   | PCA-2 Titer, CSF             |           |          | No               | No                   |
| PCTTC   | PCA-Tr Titer, CSF            |           |          | No               | No                   |

### Result Codes for Reflex Tests:

| Test ID | Result ID | Reporting Name                  | Type         | Unit  | LOINC®     |
|---------|-----------|---------------------------------|--------------|-------|------------|
| AGNBC   | 607271    | AGNA-1 Immunoblot, CSF          | Alphanumeric |       | 94383-7    |
| AMPIC   | 61524     | AMPA-R Ab IF Titer Assay, CSF   | Alphanumeric | titer | 93492-7    |
| AMIBC   | 607269    | Amphiphysin Immunoblot, CSF     | Alphanumeric |       | 94384-5    |
| AN1BC   | 607261    | ANNA-1 Immunoblot, CSF          | Alphanumeric |       | 94390-2    |
| AN2BC   | 607263    | ANNA-2 Immunoblot, CSF          | Alphanumeric |       | 94388-6    |
| CRMWC   | 21747     | CRMP-5-IgG Western Blot, CSF    | Alphanumeric |       | 53707-6    |
| DPPCC   | 64934     | DPPX Ab CBA, CSF                | Alphanumeric |       | 94283-9    |
| DPPTC   | 64991     | DPPX Ab IFA Titer, CSF          | Alphanumeric | titer | 94284-7    |
| GABIC   | 61525     | GABA-B-R Ab IF Titer Assay, CSF | Alphanumeric | titer | 93425-7    |
| GFACC   | 605154    | GFAP CBA, CSF                   | Alphanumeric |       | 93422-4    |
| GFATC   | 605134    | GFAP IFA Titer, CSF             | Alphanumeric | titer | 93421-6    |
| GL1CC   | 64931     | mGluR1 Ab CBA, CSF              | Alphanumeric |       | 93500-7    |
| GL1TC   | 64989     | mGluR1 Ab IFA Titer, CSF        | Alphanumeric | titer | 93501-5    |
| NMDIC   | 61523     | NMDA-R Ab IF Titer Assay, CSF   | Alphanumeric | titer | In Process |
| PCTBC   | 607267    | PCA-Tr Immunoblot, CSF          | Alphanumeric |       | 94386-0    |
| AGNTC   | 43443     | AGNA-1 Titer, CSF               | Alphanumeric | titer | 94355-5    |
| AN1TC   | 43440     | ANNA-1 Titer, CSF               | Alphanumeric | titer | 94356-3    |
| AN2TC   | 43441     | ANNA-2 Titer, CSF               | Alphanumeric | titer | 94357-1    |

| Test ID | Result ID | Reporting Name               | Type         | Unit  | LOINC®   |
|---------|-----------|------------------------------|--------------|-------|----------|
| AN3TC   | 43442     | ANNA-3 Titer, CSF            | Alphanumeric | titer | 94358-9  |
| APHTC   | 618164    | Amphiphysin Ab Titer, CSF    | Alphanumeric | titer | 94354-8  |
| CRMTC   | 43445     | CRMP-5-IgG Titer, CSF        | Alphanumeric | titer | 94706-9  |
| NCDCC   | 615864    | Neurochondrin CBA, CSF       | Alphanumeric |       | 101449-7 |
| NCDTC   | 616112    | Neurochondrin IFA Titer, CSF | Alphanumeric | titer | 101453-9 |
| PC2TC   | 43447     | PCA-2 Titer, CSF             | Alphanumeric | titer | 94364-7  |
| PCTTC   | 43448     | PCA-Tr Titer, CSF            | Alphanumeric | titer | 94362-1  |

### Reference Values:

| Test ID | Reporting Name                       | Methodology*           | Reference Value                                       |
|---------|--------------------------------------|------------------------|-------------------------------------------------------|
| AEPCI   | Epilepsy, Interpretation, CSF        | Medical interpretation | NA                                                    |
| AMPCC   | AMPA-R Ab CBA, CSF                   | CBA                    | Negative                                              |
| 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                                              |
| CS2CC   | CASPR2-IgG CBA, CSF                  | CBA                    | Negative                                              |
| CRMC    | CRMP-5-IgG, CSF                      | IFA                    | Negative                                              |
| DPPIC   | DPPX Ab IFA, CSF                     | IFA                    | 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                                              |
| LG1CC   | LGI1-IgG CBA, CSF                    | CBA                    | Negative                                              |
| GL1IC   | mGluR1 Ab IFA, CSF                   | IFA                    | Negative                                              |
| NCDIC   | Neurochondrin IFA, CSF               | IFA                    | Negative                                              |
| NMDCC   | NMDA-R Ab CBA, CSF                   | CBA                    | Negative                                              |
| PCTRC   | Purkinje Cell Cytoplasmic Ab Type Tr | IFA                    | Negative                                              |

|       |                                     |     |          |
|-------|-------------------------------------|-----|----------|
| PCA2C | Purkinje Cell Cytoplasmic Ab Type 2 | 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            |
| AMPIC   | AMPA-R Ab IF Titer Assay, CSF   | IFA          | <1:2            |
| 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            |
| APHTC   | Amphiphysin Ab Titer, CSF       | IFA          | <1:2            |
| CRMTC   | CRMP-5-IgG Titer, CSF           | IFA          | <1:2            |
| CRMWC   | CRMP-5-IgG Western Blot, CSF    | WB           | Negative        |
| DPPCC   | DPPX Ab CBA, CSF                | CBA          | Negative        |
| 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            |
| NMDIC   | NMDA-R Ab IF Titer Assay, CSF   | IFA          | <1:2            |
| PC2TC   | PCA-2 Titer, CSF                | IFA          | <1:2            |
| PCTBC   | PCA-Tr Immunoblot, CSF          | IB           | Negative        |
| PCTTC   | PCA-Tr Titer, CSF               | IFA          | <1:2            |

\*Methodology abbreviations:

Immunofluorescence assay (IFA)

Cell-binding assay (CBA)

Western blot (WB)

Radioimmunoassay (RIA)

Immunoblot (IB)

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

Note: CRMP-5 titers lower than 1:2 are detectable by recombinant CRMP-5 Western blot analysis. CRMP-5 Western blot analysis will be done on request on stored spinal fluid (held for 4 weeks). This supplemental testing is recommended in cases of chorea, vision loss, cranial neuropathy, and myelopathy. Call the Neuroimmunology Laboratory at 800-533-1710 to request CRMP-5 Western blot.