# Encephalopathy Autoimmune Evaluation Algorithm - Spinal Fluid

## Tests Always Performed
- **Radioimmunoassay (RIA)**
- **Immunofluorescence Assay (IFA)**
- **Immunofluorescence Assay (Cell Binding: CBA)**

## Additional Tests Based on Patient's IFA Pattern

<table>
<thead>
<tr>
<th>IFA Pattern</th>
<th>Antibodies/Proteins Tested</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANNA-1</td>
<td>α-glutamate dehydrogenase (GAD65) antibody, AMPA receptor antibody, NMDA receptor antibody, DPPX antibody, IgLON family member 5 antibody (IgLON5), Neuronal intermediate filament IgG (NIF) antibody, Caspr2-IgG, Leucine-rich glioma inactivated protein 1 IgG (LGI1) antibody, Neuron-specific enolase (NSE) antibody, Contactin-associated protein-like 2 (CASPR2)-IgG</td>
</tr>
<tr>
<td>ANNA-2</td>
<td>AMPA receptor antibody, NMDA receptor antibody, Caspr2-IgG, Leucine-rich glioma inactivated protein 1 IgG (LGI1) antibody, Neuron-specific enolase (NSE) antibody, Contactin-associated protein-like 2 (CASPR2)-IgG</td>
</tr>
<tr>
<td>ANNA-3</td>
<td>AMPA receptor antibody, NMDA receptor antibody, Caspr2-IgG, Leucine-rich glioma inactivated protein 1 IgG (LGI1) antibody, Neuron-specific enolase (NSE) antibody, Contactin-associated protein-like 2 (CASPR2)-IgG</td>
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<tr>
<td>PCA-1</td>
<td>NMDA receptor antibody, NMDA receptor antibody, Caspr2-IgG, Leucine-rich glioma inactivated protein 1 IgG (LGI1) antibody, Neuron-specific enolase (NSE) antibody, Contactin-associated protein-like 2 (CASPR2)-IgG</td>
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<tr>
<td>PCA-Tr</td>
<td>NMDA receptor antibody, NMDA receptor antibody, Caspr2-IgG, Leucine-rich glioma inactivated protein 1 IgG (LGI1) antibody, Neuron-specific enolase (NSE) antibody, Contactin-associated protein-like 2 (CASPR2)-IgG</td>
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<tr>
<td>CRMP-5-IgG</td>
<td>AMPA receptor antibody, Caspr2-IgG, Leucine-rich glioma inactivated protein 1 IgG (LGI1) antibody, Neuron-specific enolase (NSE) antibody, Contactin-associated protein-like 2 (CASPR2)-IgG</td>
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<td>AMPA-1</td>
<td>AMPA receptor antibody, Caspr2-IgG, Leucine-rich glioma inactivated protein 1 IgG (LGI1) antibody, Neuron-specific enolase (NSE) antibody, Contactin-associated protein-like 2 (CASPR2)-IgG</td>
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<td>GABA-B-1</td>
<td>AMPA receptor antibody, Caspr2-IgG, Leucine-rich glioma inactivated protein 1 IgG (LGI1) antibody, Neuron-specific enolase (NSE) antibody, Contactin-associated protein-like 2 (CASPR2)-IgG</td>
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<td>GABA-B-2</td>
<td>AMPA receptor antibody, Caspr2-IgG, Leucine-rich glioma inactivated protein 1 IgG (LGI1) antibody, Neuron-specific enolase (NSE) antibody, Contactin-associated protein-like 2 (CASPR2)-IgG</td>
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<td>GABA-B-3</td>
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**Legend:**
- **α-g** = alpha-gamma glutamatergic
- **β-gl** = beta-glutamatergic
- **δ-gl** = delta-glutamatergic
- **μ-gl** = mu-glutamatergic
- **NMDA** = N-methyl-D-aspartate
- **AMP** = α-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid
- **GABA** = gamma-aminobutyric acid
- **CRMP-5-IgG** = collapsin response mediator protein-5 neuronal
- **mGluR1** = metabotropic glutamate receptor 1
- **GFAP** = glial fibrillary acidic protein
- **NIF** = neuronal intermediate filament
- **IgLON5** = IgLON family member 5
- **DPPX** = dipeptidyl-peptidase-like protein-6
- **CASPR2-IgG** = contactin-associated protein-like 2 (CASPR2)-IgG
- **LGI1** = leucine-rich glioma inactivated protein 1
- **NSE** = neuron-specific enolase
- **α-gl** = alpha-glutamate dehydrogenase
- **GAD65** = glutamic acid dehydrogenase (GAD65)
- **PCA-1** = Purkinje cell cytoplasmic antibody, type 1
- **PCA-Tr** = Purkinje cell cytoplasmic antibody, type Tr
- **ANNA-1** = antineuronal nuclear antibody-type 1
- **ANNA-2** = antineuronal nuclear antibody-type 2
- **ANNA-3** = antineuronal nuclear antibody-type 3
- **AGNA-1** = anti-glial/neuronal nuclear antibody-type 1
- **GABA-B-1** = GABA-B receptor antibody type 1
- **GABA-B-2** = GABA-B receptor antibody type 2
- **GABA-B-3** = GABA-B receptor antibody type 3
- **AMP-1** = AMPA receptor antibody type 1
- **AMP-2** = AMPA receptor antibody type 2
- **AMP-3** = AMPA receptor antibody type 3
- **NMDA** = NMDA receptor antibody
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