Epilepsy Autoimmune Evaluation Algorithm, Serum

**EPS1 / Epilepsy, Autoimmune Evaluation, Serum**

The following tests are always performed:

- Radioimmunoprecipitation Assay (RIA)
  - P/Q-Type Calcium Channel Antibody, Serum
  - N-Type Calcium Channel Antibody, Serum
  - Acetylcholine Receptor (Muscle AChR) Binding Antibody, Serum
  - Ganglionic Acetylcholine Receptor (Alpha-3) Autoantibody, Serum
  - Neuronal Voltage-Gated Potassium Channel Complex (VGKC) Autoantibody, Serum
  - Glutamic Acid Decarboxylase (GAD65) Antibody Assay, Serum

- Immunofluorescence Assay (tissue IFA)
  - Antibodies to Neuronal Nuclear Envelope (ANNA-1), Serum
  - Antibodies to Neuronal Nuclear Envelope (ANNA-2), Serum
  - Antibodies to Neuronal Nuclear Envelope (ANNA-3), Serum
  - Purkinje Cell Cytoplasmic Antibody, Type 2 (PCA-2), Serum
  - Purkinje Cell Cytoplasmic Antibody, Type Tr (PCA-Tr), Serum
  - Antibodies to Neuronal Nuclear Envelope (AGNA-1), Serum

- Immunofluorescence Assay (cell binding; CBA)
  - NMDA-Receptor Antibody by CBA, Serum
  - AMPA-Receptor Antibody by CBA, Serum
  - GABA-B-Receptor Antibody by CBA, Serum
  - Contactin-Associated Protein-Like-2 (CASPR2)-IgG, Serum
  - Leucine-Rich Glioma Inactivated Protein-1 IgG, Serum

IFA pattern suggests:

- ANNA-1, ANNA-2, PCA-2, CRMP-5 IgG, or Amphiphysin Antibody
- or if IFA pattern is indeterminate

- Collapsin Response-Mediator Protein-5 IgG
- or if IFA pattern is indeterminate

- Paraneoplastic Autoantibody, Western Blot Confirmation, Serum

- Collapsin Response-Mediator Protein-5-IgG (CRMP-5-IgG) Western Blot, Serum

- Amphiphysin Antibody Western Blot, Serum

- Neuromyelitis Optica (NMO)/Aquaporin-4-IgG Fluorescence-Activated Cell Sorting (FACS) Assay, Serum

- Purkinje Cell Cytoplasmic Antibody, Type 1 (PCA-1), Serum

- AMPA-Receptor Antibody IF titer assay

- NMDA-Receptor Antibody IF titer assay

- GABA-B-Receptor Antibody IF titer assay

If pattern suggests:

- AMPA-Receptor Antibody and AMPA-Receptor Antibody, CBA is positive

- NMDA-Receptor Antibody and NMDA-Receptor Antibody, CBA is positive

- GABA-B-Receptor Antibody and GABA-B-Receptor Antibody, CBA is positive