

Available Autoimmune/Paraneoplastic Panels

| Laboratory – Test name - sample (Abbrev)  | Always performed   | Reflexely performed   | Not performed  |
|---|--|---|--|
| <b>Mayo Clinic – Paraneoplastic – Serum (PAVAL)</b>                                 | <b>Tissue IFA:</b> ANNA1,2,3 – PCA1,2 – PCA Tr – AGNA1 – Amphiphysin, CRMP5<br><b>RIA:</b> VGCC – AChR binding – AChR ganglionic – VGKC ELISA – Striational Ab   | <b>If AChR +ve</b> -> modulating Ab & CRMP-5<br><b>If VGKC +ve</b> -> CASPR2 & LGI1 CBA<br><b>Based on Tissue-IFA pattern, may add</b> -> NMO FACS, NMDA CBA, AMPA CBA, GABA-B CBA, GAD Ab assay<br><b>If Tissue IFA +ve for specific Ab</b> -> confirmed with western blot | Ma/Ta<br>DPPX, Recoverin, GFAP, Zic4                                 |
| <b>Mayo Clinic - Paraneoplastic – CSF (PAC1)</b>                                    | Only Tissue IFA is performed   |   | Ma/Ta<br>DPPX - Recoverin – GFAP<br>Ganglionic AChR – VGCC           |
| <b>Mayo Clinic – Autoimmune encephalopathy – Serum (ENS1)</b>                       | <b>Tissue IFA:</b> ANNA1,2,3 – PCA1,2 – PCA Tr – AGNA1 – Amphiphysin, CRMP5<br><b>RIA:</b> VGCC – AChR binding – AChR ganglionic – VGKC ELISA – GAD65<br><b>Cell-based assay:</b> NMDA – AMPA – GABA-B – CASPR2 – LGI1 | <b>If Tissue IFA +ve</b> -> western blot confirmation   | DPPX, Recoverin, GFAP, Zic4  |
| <b>Mayo Clinic – Autoimmune encephalopathy – CSF (ENC1)</b>                         | <b>Tissue IFA:</b> ANNA1,2,3 – PCA1,2 – PCA Tr – AGNA1 – Amphiphysin, CRMP5<br><b>RIA:</b> VGKC – GAD65<br><b>Cell-based assay:</b> NMDA – AMPA – GABA-B – CASPR2 – LGI1   | <b>If Tissue IFA +ve</b> -> western blot confirmation   | Ganglionic AChR – VGCC<br>DPPX - Recoverin - GFAP                    |
| <b>Athena – Paraneoplastic Neurological Initial Assessment - Serum (4500)</b>       | Ma/Ta, CV2, Amphiphysin, ANNA1,2, PCA1   | <b>Brief, limited panel with quick turn-around (3-5 days)</b>   | Narrow spectrum panel  |
| <b>Athena - NeoComplete Paraneoplastic Evaluation - Serum (467)</b>                 | LGI1, CASPR2, VGKC, NMDA, GAD65<br>Ma/Ta, CV2, Amphiphysin, ANNA1,2, PCA1, Zic4, Recoverin, VGCC, AChR ganglionic  |   | ANNA3, PCA2, PCATr, AGNA, AChR binding, Striational Ab               |
| <b>Athena - NeoEncephalitis Paraneoplastic Evaluation - Serum (447)</b>             | LGI1, CASPR2, VGKC, NMDA, GAD65<br>Ma/Ta, CV2, Amphiphysin, ANNA1  | <b>N.B: only for autoimmune encephalitis of paraneoplastic origin (in cancer patients)</b>  | ANNA2,3, PCA1,2,PCATr, AGNA, VGCC, AChR, AChR ganglionic, NMDA, AMPA |
| <b>Athena - NeoCerebellar Degeneration paraneoplastic eval - Serum (438)</b>        | GAD65, Ma/Ta, CV2, Amphiphysin, ANNA1,2, PCA1, Zic4  |   | PCA2, PCATr  |
| <b>Athena - NeoSensory neuropathy paraneoplastic eval - Serum (436)</b>             | CV2, Amphiphysin, ANNA1  |   |  |
| <b>Athena – Autoimmune Rapidly Progressive Dementia with Recombx - Serum (1711)</b> | VGKC - CASPR2 – LGI1 – GAD65 – NMDA – Amphiphysin – CV2 – ANNA1 – Ma/Ta  |   | DPPX, PCA, AChR Ganglionic   |

- **CBA:** cell-based assay – **FACS:** fluorescence-activated cell sorting – **IPA:** immunoprecipitation assay
- Panels usually require 2ml sample, most paraneoplastic panel turnaround time is 28 days. Athena tests are all serum, not CSF.