**Supplementary Table 1. Summary of corresponding mouse monoclonal antibody and nanobody immunolabeling results**

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| --- | --- | --- | --- | --- | --- |
| **Target** | **Project** | **ELISA positives** | **COS-1 ICC positives** | **Brain IHC positives** | **Brain IB positives** |
| Homer1 | mAb L113 | 144 | 144 (100%) | 73 (51%) | 29 (20%) |
| nAb | 39 | 33 (39) | 25 (20) | 13 (8) |
| IRSp53 | mAb L117 | 144 | 115 (80%) | 85 (59%) | 37 (26%) |
| nAb | 17 | 0 (14) | 0 (10) | 0 (4) |
| SAPAP2 | mAb N459 | 96 | 80 (83%) | 14 (15%) | 19 (20%) |
| nAb | 15 | 0 (12) | 0 (2) | 0 (3) |
| Gephyrin | mAb L106 | 96 | 56 (58%) | 37 (39%) | 34 (35%) |
| nAb | 24 | 0 (9) | 0 (9) | 2 (8) |
| AMIGO-1 | mAb L86, L86A | 122 | 21 (17%) | 33 (27%) | 17 (14%) |
| nAb | 18 | 0 (3) | 0 (5) | 0 (2) |