

## KEY RESOURCES TABLE

| REAGENT/RESOURCE  | SOURCE               | IDENTIFIER                                    |
|---|----------------------|---|
| <b>Chemicals, peptides, and recombinant proteins</b>        |                      |   |
| Philanthotoxin-433  | Sigma-Aldrich        | 276684-27-6                                   |
| EGTA-AM   | Sigma-Aldrich        | 99590-86-0                                    |
| <b>Antibodies</b>   |                      |   |
|   | <b>Dilution</b>      |   |
| Mouse anti-BRP (nc82)                                       | 1:250                | Developmental Studies Hybridoma Bank (DSHB)   |
| Guinea pig anti-RBP   | 1:100                | (He et al., 2023)                             |
| Guinea pig anti-Unc13A                                      | 1:100                | (Böhme et al., 2016)                          |
| Chicken anti-GFP  | 1:400                | Aves Labs                                     |
| Alexa Fluor 488 conjugated Goat anti-Horseradish Peroxidase | 1:400                | Jackson ImmunoResearch Laboratories (Jackson) |
| Alexa Fluor 488 conjugated secondary antibodies             | 1:400                | Jackson                                       |
| Cy3-conjugated secondary antibodies                         | 1:400                | Jackson                                       |
| Alexa Fluor 594 conjugated secondary antibodies             | 1:400                | Jackson                                       |
| Alexa Fluor 647 conjugated Goat anti-Horseradish Peroxidase | 1:400                | Jackson                                       |
| STAR RED conjugated secondary antibodies                    | 1:200                | Abberior                                      |
|   |                      | STRED-1001<br>STRED-1006                      |
| <b>Drosophila Strains</b>                                   |                      |   |
| UAS-Syt::mScarlet::GCaMP8f                                  | (Li et al., 2021)    |   |
| UAS-BoNT-C  | (Han et al., 2022)   |   |
| <i>Cac<sup>sfGFP-N</sup></i>                                | (Gratz et al., 2019) |   |
| OK319-Gal4  | (Beck et al., 2012)  |   |
| dHb9-GAL4 (Ib-Gal4)   | BDSC                 | 83004   |
| GMR27E09-GAL4 (Is-Gal4)                                     | BDSC                 | 49227   |
| <i>GluRIIA<sup>pv3</sup></i>                                | (Han et al., 2023)   |   |
| <i>w<sup>1118</sup></i>                                     | BDSC                 | 5905  |
| <b>Software and Algorithms</b>                              |                      |   |
| NIS Elements software                                       | Nikon                | 4.51.01                                       |
| Huygens Essential   | SVI                  | 22.10   |
| Axon pCLAMP   | Molecular Devices    | 10.7  |
| MiniAnalysis  | Synaptosoft          | 6.0.3   |
| GraphPad Prism  | GraphPad             | 8.0.1   |

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