**Table 1. Sessions and animals used for the different analysis**

Summary of the experimental sessions used for training and validation

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Animal** | **Session** | **Duration (s)** | **#ripples** | |
| **Training** | | | | |
| Amigo2\_1 | hippo\_2019-07-11\_11-57-07\_1150um | 2398.86 | 1309 | |
| Som\_2 | hippo\_2019-07-24\_12-01-49\_1530um | 1036.25 | 485 | |
| **Offline validation** | | | | |
| Thy7 | 2020-11-11\_16-05-00 | 744.21 | 1064 | |
| Thy7 | 2020-11-11\_16-21-15 | 763.67 | 926 | |
| Thy7 | 2020-11-11\_16-35-43 | 701.99 | 656 | |
| Thy1GCam1 | 2020-12-18\_13-16-03 | 708.92 | 301 | |
| Thy1GCam1 | 2020-12-18\_13-32-27 | 669.15 | 412 | |
| Thy1GCam1 | 2020-12-18\_14-40-16 | 613.75 | 245 | |
| Thy1GCam1 | 2020-12-18\_14-56-54 | 725.4 | 237 | |
| Thy1GCam1 | 2020-12-21\_14-58-51 | 630.61 | 115 | |
| Thy1GCam1 | 2020-12-21\_15-11-32 | 651.16 | 159 | |
| Thy1GCam1 | 2020-12-21\_15-26-01 | 682.22 | 165 | |
| Calb20 | 2021-01-22\_13-08-20 | 1203.23 | 412 | |
| Dlx1 | 2021-02-12\_12-24-56 | 1200.67 | 254 | |
| Dlx1 | 2021-02-12\_12-46-54 | 1021.34 | 211 | |
| Thy9 | 2021-03-16\_12-10-32 | 1516.65 | 264 | |
| Thy9 | 2021-03-16\_14-31-51 | 1201.19 | 274 | |
| **Online validation** | | | | |
| PV6 | 2021-04-19\_14-02-31 | 1051.75 | 422 | |
| PV7xChR2 | 2021-05-18\_13-08-23 | 958.53 | 80 | |
| PV7xChR2 | 2021-05-18\_13-24-33 | 855.42 | 121 | |
| PV7xChR2 | 2021-05-18\_13-08-23 | 958.53 | 88 | |
| Thy10 | 2021-06-01\_13-28-27 | 626.62 | 318 | |
| Thy10 | 2021-06-15\_15-28-56 | 976.90 | 566 | |
| Som\_8 | Som8\_220209\_123505 | 646.72 | 108 | |
| WT04 | WT04\_220314\_115332 | 601.63 | 211 | |
| **Neuropixels** | | | | |
| Calb | 28Jul\_g0\_imec0 | 754.28 | 166 | |
| Thy1 | 01Jul\_g0\_imec0 | 643.60 | 709 | |
| Thy1 | 15Jul\_g0\_imec0 | 690.95 | 124 | |
| Thy1 | 16Jun\_g0\_imec0 | 655.70 | 625 | |
| **External database** | | | | |
|  | | | **Original** | **Validated** |
| Achilles | Achilles\_10252013 (first 30 min chunk) | 1800.00 | 223 | 423 |
| Achilles | Achilles\_10252013 (fifth 30 min chunk) | 1800.00 | 470 | 821 |
| Achilles | Achilles\_11012013 (first 30 min chunk) | 1800.00 | 569 | 283 |
| Cicero | Cicero\_09012014 (first 30 min chunk) | 1800.00 | 264 | 133 |
| Cicero | Cicero\_09012014 (third 30 min chunk) | 1800.00 | 515 | 743 |