|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **cell code** | **strept** | **immuno** | **acw**  **(ms)** | **firing freq. accomm.** | **Em (mV)** | **gender** | **age** | **hemisphere** | **neocortical area** | **diagnosed pathology** |
| **Fig 1 exp.** |  |  |  |  |  |  |  |  |  |  |  |
| GBZ | V041017\_4 | strept | pv+, vGAT+ | 0.5 |  | -64 | female | 69 | right | occipital | subcortical neoplasia |
|  | V091117\_1 | strept | pv+ | 0.5 | 160Hz / acc. 0.8 | -75 | female | 63 | right | temporal | hydrocephalus |
|  | V231117\_2 | strept | pv+, vGAT+ | 0.7 |  | -73 | female | 68 | right | temporal | hydrocephalus |
|  | V071217\_1 | strept | pv+ | 0.5 | 100Hz/acc. 1.1 | -70 | female | 76 | right | frontal | hydrocephalus |
|  | V130618\_2 | NA |  | 0.5 |  | -63 | female | 35 | right | temporal | subcortical neoplasia |
|  |  |  |  |  |  |  |  |  |  |  |  |
| BAPTA | K190918\_1 | NA |  | 0.4 | 170Hz/acc. 1.0 | -70 | male | 21 | right | temporo-occipital | subcortical cystic neoplasm |
|  | V190918\_4 | strept | pv non concl. | 0.6 | 150Hz/acc. 0.8 | -70 | male | 21 | right | temporo-occipital | subcortical cystic neoplasm |
|  | V190918\_5 | strept | pv non concl. | 0.5 |  | -73 | male | 21 | right | temporo-occipital | subcortical cystic neoplasm |
|  | V091018\_1 | NA |  | 0.6 |  | -69 | female | 66 | left | frontal | cortical metaplasia |
|  | V171018\_1 | NA |  | 0.6 | 150Hz/acc. 0.9 | -68 | male | 33 | right | frontal | hydrocephalus |
|  | V171018\_2 | NA |  | 0.5 | 200Hz/Acc. 0.9 | -76 | male | 33 | right | frontal | hydrocephalus |
|  |  |  |  |  |  |  |  |  |  |  |  |
| no aut | V041017\_3 | strept | pv+, vGAT+ | 0.7 |  | -68 | female | 69 | right | occipital | subcortical neoplasia |
|  | V121217\_1 | strept | pv+ | 0.65 |  | -74 | female | 68 | right | temporal | hydrocephalus |
| **Fig 2 and 3 exp.** |  |  |  |  |  |  |  |  |  |  |  |
|  | K151217\_2 | strept | pv+ | 0.65 |  | -71 | female | 19 | right | frontal | subcortical neoplasia |
|  | K080917\_1 | NA |  | 0.5 | 170Hz/acc. 0.76 | -63 | male | 45 | right | fronto-temporal | subcortical neoplasia |
|  | K121217\_1 | strept | pv+, vGAT+ | 0.5 | 150Hz/acc. 0.8 | -81 | female | 68 | right | temporal | hydrocephalus |
|  | K150218\_1 | strept | pv non concl. | 0.7 | 250Hz/acc. 0.6 | -76 | female | 67 | right | occipital | subcortical neoplasia |
|  | K151217\_3 | strept | pv+, vGAT+ | 0.6 |  | -80 | female | 19 | right | frontal | subcortical neoplasia |
|  | K150917\_2 | strept | pv+ | 0.6 |  | -68 | female | 63 | right | occipital | subcortical neoplasia |
|  | K270218\_1 | strept | pv non concl. | 0.65 | 190Hz/acc. 1 | -78 | male | 34 | left | frontal | subcortical neoplasia |
|  | K260118\_1 | strept | pv+ | 0.6 | 300Hz/acc. 0.83 | -83 | female | 54 | right | frontal | hydrocephalus |
|  | K071217\_1 | strept | pv+ | 0.6 |  | -68 | female | 76 | right | frontal | hydrocephalus |
|  | K280218\_1 | strept | pv+ | 0.5 |  | -84 | female | 41 | right | frontal | hydrocephalus |
|  | K121217\_3 | strept | pv+ | 0.5 |  | -73 | female | 68 | right | temporal | hydrocephalus |
|  | K231117\_3 | strept | pv non concl. | 0.65 | 130Hz/acc. 0.76 | -78 | female | 68 | right | temporal | hydrocephalus |
|  | k260118\_2 | strept | pv+ | 0.65 | 260Hz/acc. 0.7 | -75 | female | 54 | right | frontal | hydrocephalus |
|  | k200218\_6 | strept | pv+ | 0.45 | 310/acc. 0.8 | -62 | female | 54 | right | frontal | aneurysm |
|  |  |  |  |  |  |  |  |  |  |  |  |
| no aut | K280218\_1 | strept | pv+ | 0.35 |  | -63 | female | 41 | right | frontal | hydrocephalus |
|  | K250118\_1 | strept | pv+ | 0.35 |  | -75 | female | 50 | left | occipital | astrocytoma |
|  | K250118\_2 | strept | pv+ | 0.6 | 220Hz/acc. 0.77 | -77 | female | 50 | left | occipital | astrocytoma |
|  | K200218\_3 | strept | pv+ | 0.6 | 180Hz/acc. 0.8 | -74 | male | 56 | right | occipital | hydrocephalus |
|  | K200218\_4 | strept | pv+ | 0.45 | 220Hz/acc. 0.86 | -61 | female | 54 | right | frontal | aneurysm |
|  | K270218\_2 | strept | pv non concl. | 0.55 | 170Hz/acc. 0.76 | -71 | male | 34 | left | frontal | subcortical neoplasia |
|  | K231117\_2 | strept | pv+ | 0.5 | 270Hz/acc. 0.6 | -88 | female | 68 | right | temporal | hydrocephalus |
|  | V220818\_2 | strept | pv non concl. | 0.5 | 160Hz/acc. 0.8 | -71 | female | 26 | right | frontal |  |
|  | K250118\_3 | strept | pv+ | 0.5 | 290Hz/acc. 0.9 | -71 | female | 50 | left | occipital | astrocytoma |
| **Suppl. fig. 2 exp.** |  |  |  |  |  |  |  |  |  |  |  |
|  | K231117\_2 | strept | pv+ | 0.5 |  | -88 | female | 68 | right | temporal | hydrocephalus |
|  | K150218\_1 | strept | pv non concl. | 0.65 |  | -70 | female | 67 | right | occipital | subcortical neoplasia |
|  | K151217\_3 | strept | pv+, vGAT+ | 0.6 |  | -81 | female | 19 | right | frontal | subcortical neoplasia |
|  | K151217\_2 | strept | pv+ | 0.65 |  | -74 | female | 19 | right | frontal | subcortical neoplasia |
|  | K121217\_1 | strept | pv+, vGAT+ | 0.5 |  | -79 | female | 68 | right | temporal | hydrocephalus |
|  | K080917\_1 | NA |  | 0.5 |  | -63 | male | 45 | right | fronto-temporal | subcortical neoplasia |
|  | K040915\_2 | strept | pv+ | 0.5 | 240Hz/acc. 0.7 | -78 | male | 55 | right | frontal | subcortical neoplasia |
|  | K050615\_1 | strept | pv non concl.,vGAT+ | 0.5 |  | -73 | male | 68 | right | temporal | glioblastoma grade IV. |
|  | K100417\_1 | strept | pv+, vGAT+ | 0.4 | 210Hz/acc. 0.76 | -70 | female | 39 | right | frontal | glioblastoma grade IV. |
|  | K140415\_2 | strept | pv and vGAT non concl. | 0.4 | 340Hz/acc. 0.8 | -89 | male | 18 | right | frontal | malignant germinoma, grade II. |
|  | K190315\_1 | strept | pv non concl. | 0.4 | 360Hz/aoo. 0.8 | -68 | male | 85 | left | fronto-temporal | hydrocephalus |
|  | K230615\_1 | strept | pv+, vGAT+ | 0.4 | 270Hz/acc. 1 | -86 | female | 30 | no info | no info | hydrocephalus |
|  | K230915\_1 | strept | pv+ | 0.5 | 330Hz/acc. 0.9 | -86 | female | 40 | right | frontal | anaplastic ependymoma |
|  | K230915\_3 | strept | pv+, vGAT+ | 0.45 |  | -85 | female | 40 | right | frontal | anaplastic ependymoma |
|  | K250615\_1 | strept | pv+ | 0.45 | 230Hz/acc. 1 | -93 | female | 10 | left | frontal | pilocytic astrocytoma |
|  | K250615\_5 | strept | pv+ | 0.4 | 300Hz/acc. 0.9 | -85 | female | 10 | left | frontal | pilocytic astrocytoma |
|  | K260515\_1 | strept | NA | 0.4 | 370Hz/acc. 0.8 | -83 | female | 31 | left | temporo-occipital | fibrillary astrocytoma |
|  | K280415\_1 | strept | pv+, vGAT+ | 0.4 | 350Hz/acc. 0.8 | -84 | female | 28 | right | temporal | hydrocephalus |
|  | K280815\_1 | strept | pv+ | 0.4 | 290Hz/acc. 0.8 | -80 | female | 58 | right | temporal | subarachnoid hemorrhage |
|  | K290415\_2 | NA |  | 0.4 | 350Hz/acc. 1 | -91 | female | 32 | left | frontal | subcortical neoplasia |
| **pvBC-pvBC pairs** |  |  |  |  |  |  |  |  |  |  |  |
|  | K151217\_3  presynaptic | strept | pv+, vGAT+ | 0.6 |  | -83 | female | 19 | right | frontal | subcortical neoplasia |
|  | postsynaptic | NA |  | 0.5 |  | -73 |  |  |  |  |  |
|  | K190619\_1 mutual pair |  |  |  |  |  | female | 56 | left | temporal | subcortical neoplasia |
|  | cell 1 | NA |  | 0.55 |  | -64 |  |  |  |  |  |
|  | cell 2 | NA |  | 0.6 |  | -58 |  |  |  |  |  |
| **Fig 2 exp. In mouse** |  |  |  |  |  |  |  |  |  |  |  |
|  | K250618\_1 | strept |  | 0.4 |  | -75 |  |  |  |  |  |
|  | K260618\_2 | strept |  | 0.5 |  | -68 |  |  |  |  |  |
|  | K260618\_5 | strept |  | 0.5 |  | -76 |  |  |  |  |  |
|  | K020718\_3 | strept |  | 0.4 |  | -83 |  |  |  |  |  |
|  | K030718\_1 | strept |  | 0.55 |  | -78 |  |  |  |  |  |
|  | K030718\_3 | NA |  | 0.7 |  | -85 |  |  |  |  |  |
|  | K290618\_2 | strept | pv+ | 0.6 |  | -75 |  |  |  |  |  |
|  | K290618\_3 | strept | pv+ | 0.5 |  | -83 |  |  |  |  |  |
|  | K290618\_4 | strept |  | 0.5 |  | -73 |  |  |  |  |  |
|  | V260618\_1 | strept |  | 0.5 |  | -68 |  |  |  |  |  |
|  | V290618\_4 | strept | pv+ | 0.7 |  | -86 |  |  |  |  |  |
| **Fig 4 exp.** |  |  |  |  |  |  |  |  |  |  |  |
|  | V101118\_1 | strept | pv+ | 0.6 | 180Hz/acc. 0.76 | -76 | male | 20 | right | frontal | hydrocephalus |
|  | V150219\_2 | strept | pv+ | 0.7 | 110Hz/acc. 0.8 | -64 | female | 67 | right | occipital | subcortical neoplasia |
|  | V150219\_3 | strept | pv non concl. | 0.7 | 120Hz/acc. 0.8 | -64 | female | 67 | right | occipital | subcortical neoplasia |
|  | V260219\_2 | strept | pv non concl. | 0.6 |  | -67 | male | 68 | no info | temporal | hydrocephalus |
|  | V050419\_2 | strept | pv non concl. | 0.5 |  | -73 | female | 22 | right | frontal | hydrocephalus |
|  | V290319\_1 | strept | pv non concl. | 0.5 | 210Hz/acc. 0.8 | -79 | male | 51 | no info | no info | hydrocephalus |
|  | V290319\_2 | NA |  | 0.5 | 170Hz/acc. 0.9 | -68 | male | 51 | no info | no info | hydrocephalus |
|  |  |  |  |  |  |  |  |  |  |  |  |
| NonFSINs | V260219\_1 | strept | pv-, vGAT+ | 1 | 80Hz/acc. 0.12 | -64 | male | 68 | no info | temporal | hydrocephalus |
|  | V120219\_1 | strept | pv and vGAT non concl. | 0.8 |  | -68 | female | 66 | right | frontal | astrocytoma |
|  | V080119\_2 | strept | vGAT+ | 0.9 |  | -81 | male | 49 | right | frontal | colloid cyst |
|  | v080119\_1 | strept | pv-, vGAT+ | 0.8 | 130Hz/acc. 0.5 | -74 | male | 49 | right | frontal | colloid cyst |
|  | V160119\_1 | strept | pv non concl. | 0.85 |  | -65 | male | 58 | left | frontal | epithelial carcinoma metaplasia |
|  | V131218\_1 | strept | pv and vGAT non concl. | 0.9 |  | -71 | female | 79 | right | temporal | hydrocephalus |
|  | V050419\_1 | strept | vGAT+ | 0.85 |  | -56 | female | 22 | right | frontal | hydrocephalus |
|  | V080518\_1 | strept | pv and vGAT non concl. | 1 | 140Hz/acc. 0.7 | -81 | female | 68 | right | frontal | tumor |
| nonFSIN in results not in figures |  |  |  |  |  |  |  |  |  |  |  |
|  | V190918\_3 | strept | pv- | 0.9 | 120Hz/acc. 0.5 | -73 | male | 21 | right | temporo-occipital | subcortical cystic neoplasm |
|  | V311017\_2 | strept | pv- | 0.8 |  | -64 | female | 39 | right | frontal | glioblastoma |
|  | V091117\_3 | strept | pv- | 1.2 |  | -63 | female | 63 | right | temporal | hydrocephalus |
|  | V100818\_1 | strept | pv and vGAT non concl. | 0.9 |  | -59 | female | 46 | right | temporal | astrocytoma |
|  | V130618\_1 | strept | pv- | 1.1 |  | -74 | female | 35 | right | temporal | subcortical neoplasia |
|  | V100518\_2 | strept | pv and vGAT non concl. | 1 | 100Hz/acc. 0.6 | -76 | female | 73 | right | frontal | biopsy (MRI: multifocal lesions) |
|  | V220218\_1 | strept | pv and vGAT non concl. | 0.85 |  | -74 | male | 42 | left | frontal | subcortical neoplasia |
|  | V091117\_2 | strept | pv- | 0.9 | 90Hz/acc. 0.44 | -83 | female | 63 | right | temporal | hydrocephalus |
|  | K231117\_4 | strept | pv- | 0.8 | 80Hz/acc. 0.5 | -88 | female | 68 | right | temporal | hydrocephalus |
|  | V151117\_1 | NA |  | 0.9 | 60Hz/acc. 0.3 | -64 | female | 61 | right | frontal | fibrillic astrocytoma |
|  | K300119\_1 | strept | pv and vGAT non concl. | 0.7 | 110Hz/acc. 0.5 | -83 | female | 69 | no info | no info | hydrocephalus |
|  | K260219\_2 | strept | pv- | 0.7 |  | -65 | male | 68 | no info | temporal | hydrocephalus |
|  | V231117\_1 | strept | pv and vGAT non concl. | 0.8 |  | -88 | female | 68 | right | temporal | hydrocephalus |
|  | K181017\_1 | strept | pv and vGAT non concl. | 0.8 |  | -66 | female | 78 | right | frontal | hydrocephalus |
| **Fig 5 exp.** |  |  |  |  |  |  |  |  |  |  |  |
|  | V190619\_2 | strept | pv+ | 0.6 | 230Hz/acc. 0.8 | -75 | female | 56 | no info | no info | hydrocephalus |
|  | V190619\_3 | strept | pv+ | 0.55 | 170Hz/acc. 0.7 | -75 | female | 56 | no info | no info | hydrocephalus |
|  | V190619\_4 | strept | pv+ | 0.6 | 150Hz/acc. 0.86 | -72 | female | 56 | no info | no info | hydrocephalus |