The present dataset contains original data and metadata published in :

bioRxiv, 2023. doi: 10.5281/zenodo.7623898

“Metadata.pdf” contains values of the analysis for calcium imaging experiments.

Data are contained in matlab files (.mat) named with the corresponding Figure (with panel or blocker when different experiments are presented in the same figure). Inside the files, each cell is a NX5 array or a NX7 array where each column represents:

**In case of Figure1A and Figure7:**

**Column1**: time in ms.

**Column2**: somatic membrane (action) potential (20 kHz) – in control condition.

**Column3**: somatic membrane (action) potential (20 kHz) – after delivery of a blocker.

**Column4**: either dendritic membrane potential fluorescence (20 kHz) – in control condition.

**Column5**: either dendritic membrane potential fluorescence (20 kHz) – after delivery of a blocker.

**In case of Figure2 and Figure3:**

**Column1**: time in ms.

**Column2**: somatic membrane (action) potential (20 kHz) – in control condition.

**Column3**: somatic membrane (action) potential (20 kHz) – after delivery of first blocker.

**Column4**: dendritic calcium fluorescence (20 kHz) – in control condition.

**Column5**: dendritic calcium fluorescence (20 kHz) – after delivery of a blocker.

**In case of Figure4:**

**Column1**: time in ms.

**Column2**: somatic membrane (action) potential (20 kHz) – in control condition.

**Column3**: somatic membrane (action) potential (20 kHz) – after delivery of iberiotoxin.

**Column4**: somatic membrane (action) potential (20 kHz) – after delivery of iberiotoxin+ω-conotoxin-GVIA.

**Column5**: dendritic calcium fluorescence (20 kHz) – in control condition.

**Column6**: dendritic calcium fluorescence (20 kHz) – after delivery of iberiotoxin.

**Column7**: dendritic calcium fluorescence (20 kHz) – after delivery of iberiotoxin+ω-conotoxin-GVIA.

**In case of NX7 arrays:**

**Column1**: time in ms.

**Column2**: somatic membrane (action) potential (20 kHz) – in control condition.

**Column3**: somatic membrane (action) potential (20 kHz) – after delivery of first blocker.

**Column4**: either dendritic membrane potential or dendritic calcium fluorescence (20 kHz) – in control condition.

**Column5**: either dendritic membrane potential or dendritic calcium fluorescence (20 kHz) – after delivery of a blocker.

For all details regarding this work, refer to the pre-print version of the report freely available at bioRxiv, 2023. <https://www.biorxiv.org/content/10.1101/2023.10.26.564136v1>