

Description of Additional Supplementary Files

File Name: Supplementary Movie 1

Description: Examples of neurons in V1 expressing jGCaMP8m after RO injection. Video averaged across 20 frames.

File Name: Supplementary Movie 2

Description: Examples of neurons in V1 expressing EE-RR-jGCaMP8m after RO injection. Video averaged across 20 frames.

File Name: Supplementary Movie 3

Description: Examples of neurons in V1 expressing EE-RR-jGCaMP8m after RO injection. Similar to Video S2, but with higher optical zoom. Video averaged across 20 frames.

File Name: Supplementary Movie 4

Description: Examples of neurons in V1 expressing EE-RR-jGCaMP8s after IC injection. Video averaged across 20 frames.

File Name: Supplementary Movie 5

Description: Examples of neurons in V1 expressing Ribo-jGCaMP8m after IC injection. Video averaged across 20 frames.

File Name: Supplementary Movie 6

Description: Examples of neurons in V1 expressing Ribo-jGCaMP8m after IC injection. Similar to Video S5, but with higher optical zoom. Video averaged across 20 frames.

File Name: Supplementary Movie 7

Description: Examples of neurons in V1 expressing RiboL1-jGCaMP8s after IC injection. Video averaged across 20 frames.