

Session ID	# cells	6-0 accuracy / # trials	5-1 accuracy / # trials	4-2 accuracy / # trials	3-3 accuracy / # trials	GCaMP Variant
131_140911	194	100% / 107	91.1% / 90	82.4% / 34	N/A / 0	f
131_140916	188	94.7% / 94	85.7% / 105	81.8% / 33	N/A / 0	f
136_140820	270	93.1% / 87	89.8% / 79	66.0% / 47	N/A / 0	f
142_141212	434	90.0% / 181	85.0% / 181	76.9% / 52	N/A / 0	m
142_141218	381	89.6% / 135	81.7% / 120	67.5% / 40	N/A / 0	m
142_150103	215	90.7% / 86	83% / 94	74.3% / 105	60.5% / 38	m
144_141203	648	87.8% / 106	79.5% / 146	73.8% / 42	N/A / 0	m
144_141204	585	88.6% / 140	82.6% / 155	66.7% / 72	N/A / 0	m
144_141228	330	80.9% / 173	77.9% / 163	77.6% / 49	N/A / 0	m
150_141128	323	100% / 114	88.3% / 102	73.1% / 108	41.7% / 12	f
150_141207	313	98.1% / 107	82.2% / 107	78.4% / 116	57.1% / 49	f

**Supplementary Table 1**

**Summary of datasets analyzed.**