

Supplementary Table 1: Calibration results for electrodes used in the experiments

ID	Sensitivity (pA/ $\mu$ M)	Limit of detection ( $\mu$ M Glu)	Linearity ( $R^2$ )	Selectivity (Glu:AA)	Similarity to H <sub>2</sub> O <sub>2</sub>	channel
984	-0.0147	0.0958	0.9963	184	115	2-4
983	-0.0070	0.2132	0.9994	126	112	2-4
986	-0.0109	0.0436	0.9998	110	123	2-4
993	-0.0068	0.0988	0.9997	95	118	2-4
981	-0.0034	0.2007	1.0000	119	103	2-4
974	-0.0045	0.3721	0.9969	137	113	2-3
972	-0.0048	0.0880	0.9984	235	100	2-3
MEAN	-0.0074	0.1589	0.9986	143.7746	112	
SD	0.0040	0.1126	0.0015	49.0865	8	
SEM	0.0015	0.0426	0.0006	18.5529	3	
N	7	7	7	7	7	

ID	Sensitivity (pA/ $\mu$ M)	Limit of detection ( $\mu$ M Glu)	Linearity ( $R^2$ )	Selectivity (Glu:AA)	Similarity to H <sub>2</sub> O <sub>2</sub>	channel
1437	-0.0020	0.2176	0.9980	93	96	2-4
1971	-0.0026	0.2360	0.9977	140	100	1-3
2086	-0.0094	0.3211	0.9995	206	135	1-3
2087	-0.0137	0.3095	0.9995	359	123	2-4
6323	-0.0089	0.0317	0.9985	265	96	1-3
6231	-0.0047	0.1341	0.9982	268	82	2-4
MEAN	-0.0069	0.2083	0.9986	221.9476	105	
SD	0.0045	0.1100	0.0008	96.4046	20	
SEM	0.0018	0.0449	0.0003	39.3570	8	
N	6	6	6	6	6	