

**SUPPL. TABLE 1.** Characteristics of excitation in response to stimulations.

		N	Duration of excitation (s)		$\Delta F/F \times 100$
<b>Standard</b>	Hypercapnia	49	31.3 $\pm$ 33.7		12.1 $\pm$ 7.9
	Hypoxia	39	48.6 $\pm$ 44.8		10.4 $\pm$ 5.4
	Low K <sup>+</sup>	43	72.4 $\pm$ 40.9	*** \$	9.5 $\pm$ 4.8
<b>Cocktail</b>	Hypercapnia	38	28.7 $\pm$ 31.9		10.5 $\pm$ 5.2
	Hypoxia	40	40.3 $\pm$ 43.9		9.9 $\pm$ 5.3
	Low K <sup>+</sup>	33	52.1 $\pm$ 41.5	*	8.1 $\pm$ 3.8
<b>TTX</b>	Hypercapnia	34	22.9 $\pm$ 24.4		8.7 $\pm$ 5.1
	Hypoxia	35	35.8 $\pm$ 31.9		6.9 $\pm$ 3.8 * \$\$
	Low K <sup>+</sup>	30	69.8 $\pm$ 53.7	*** \$\$	6.2 $\pm$ 2.8 **
<b>FA</b>	Hypercapnia	24	33.2 $\pm$ 38.0		7.5 $\pm$ 3.5 *
	Hypoxia	18	42.2 $\pm$ 44.4		7.3 $\pm$ 3.4
	Low K <sup>+</sup>	12	45.4 $\pm$ 41.2		6.1 $\pm$ 3.3 *

Standard, in standard solution; Cocktail, in cocktail blockers solution; TTX, in 0.5  $\mu$ M solution; FA, in 5 mM fluoroacetate + 0.5  $\mu$ M TTX solution. Hypercapnia, cells that responded to hypercapnic stimulation (2% CO<sub>2</sub>→8% CO<sub>2</sub>); Hypoxia, cells that responded to hypoxic stimulation (95% O<sub>2</sub>→0% O<sub>2</sub>); Low K<sup>+</sup>, cells that responded to low K<sup>+</sup> solution. Duration of excitation (s), duration that fluorescence intensity increased compared with the baseline.  $\Delta F/F \times 100$ ,  $\Delta F/F$  (percentage) of the peak value. Duration of peak (s) was analyzed in each group; \* $P$  < 0.05, \*\*\* $P$  < 0.001; compared with Hypercapnia and \$ $P$  < 0.05, \$\$ $P$  < 0.01; compared with Hypoxia (by one-way ANOVA followed by Tukey–Kramer multiple comparisons test).  $\Delta F/F$  in each group did not differ significantly. Difference of  $\Delta F/F$  in each stimulus condition was significant in some cases; \* $P$  < 0.05, \*\* $P$  < 0.01; compared with those in the standard solution; \$\$ $P$  < 0.01; compared with that in cocktail blockers solution (by one-way ANOVA followed by Tukey–Kramer multiple comparisons test).