Cell Type-Specific Expression of Acid-Sensing Ion Channels in Hippocampal Interneurons

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Supplemental Figures

## Supplementary Figures

Figure 1. Cell type-specific markers in functionally identified neurons
(A)Ethidium bromide-stained gels of the PCR products amplified with primers specific for somatostatin (SOM), cholecystokinin (CCK), calcineurin (CN) glutamate decarboxylase 65 (GAD) and parvalbumin (PV). Note the lack of expression of GAD and PV transcripts in CA1 pyramidal cells. Molecular weight marker is shown in the left lane, together with the corresponding number of base pairs.
(B) Bar graph showing the percentage of SOM, CCK and PV transcripts detected in putative O-LM cells $(n=6-8)$ and BCs $(n=7-11)$. All analyzed cells were positive for GAD.

Figure 2. $\mathrm{K}^{+}$currents in nucleated patches from O-LM cells, PNs and BCs
(A) Nucleated patches from distinct types of neurons exhibited characteristic feature of voltage-gated $\mathrm{K}^{+}$currents. The outward $\mathrm{K}^{+}$currents were evoked by holding nucleated patches at -100 mV and stepped to +70 mV for 200 ms (step 20 mV ).
(B) Scatter plot showing the ASIC current plotted against the $\mathrm{K}^{+}$current ratio, which is defined by sustained current amplitude/peak current amplitude, from different types of neurons (O-LM, $n=17 ; \mathrm{PN}, n=14 ; \mathrm{BC}, n=7$ ). The ASIC current was measured at -60 mV .

Figure 3. ASIC currents were blocked by extracellular calcium
(A) Representative ASIC currents in a nucleated patch from an O-LM cell evoked by $200-\mathrm{ms} \mathrm{pH} 5$ pulses in $1.8 \mathrm{mM}\left[\mathrm{Ca}^{2+}\right]_{0}$ and then in $18 \mathrm{mM}\left[\mathrm{Ca}^{2+}\right]_{\mathrm{o}}$,
followed by $1.8 \mathrm{mM}\left[\mathrm{Ca}^{2+}\right]_{0}$.
(B) Bar plot showing that ASIC currents were reversibly blocked by extracellular $\mathrm{Ca}^{2+}$. Data are from 5 O-LM cells.


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Suppl Fig 2. Weng et al.

A


B


Suppl Fig 3. Weng et al.

