Supplementary Data Table

	Control Buffer (n = 13)	Leptin, 0.1 nM (n = 5)	Leptin, 1 nM (n = 6)	Leptin, 10 nM (n = 6)
Duration at half-maximal amplitude, ms	2.3 ± 0.8	2.2 ± 0.6	1.7 ± 0.5	2.6 ± 0.8
Spike threshold, mV	-38 ± 6.9	-36 ± 8.3	-38 ± 5.8	-38 ± 7.1
Input resistance, MΩ	1026 ± 404	948 ± 452	1237 ± 409	907 ± 359

Table. Action potential characteristics and neuronal input resistance with leptin. Neuronal input resistance and action potential characteristics were evaluated in current clamp configuration by subjecting cultured hippocampal neurons to a series of 700 ms hyperpolarizing and depolarizing current steps ranging from -40 pA to +40 pA in 10 pA increments. Action potential amplitude, duration, and threshold were analyzed for each neuron before and after application of different concentrations of leptin (0.1-10 nM). Action potential amplitude was defined as the difference between the peak voltage of the action potential and the resting membrane potential. Duration was defined as the action potential width at half amplitude. Threshold was defined as the voltage during the rising phase of the action potential at which dV/dt reaches 2% of its maximum (Khaliq and Raman, 2006). Neuronal input resistance was determined by the slope of the line obtained by plotting membrane voltage 600 ms after the start of a hyperpolarizing current step versus the magnitude of the current step.

References

1. Khaliq ZM, Raman IM (2006) Relative contributions of axonal and somatic Na channels to action potential initiation in cerebellar Purkinje neurons. J Neurosci 26: 1935-1944.