Supplementary Information

Figure S1. Frequency distribution of mitochondrial length and area after glutamate stimulation. Frequency distribution of neuronal mitochondrial length (**A**) and area (**B**) before and after treatment of neurons with 30 μM glutamate and 3 μM glycine for 3, 6 and 24 h respectively. The values of histogram interval (bin) are 0.25 μm for mitochondrial length and 0.5 μm^2 for mitochondrial area. Notice that glutamate treatment caused progressively increase in the number of small mitochondria and this effect was dependent on treatment time.

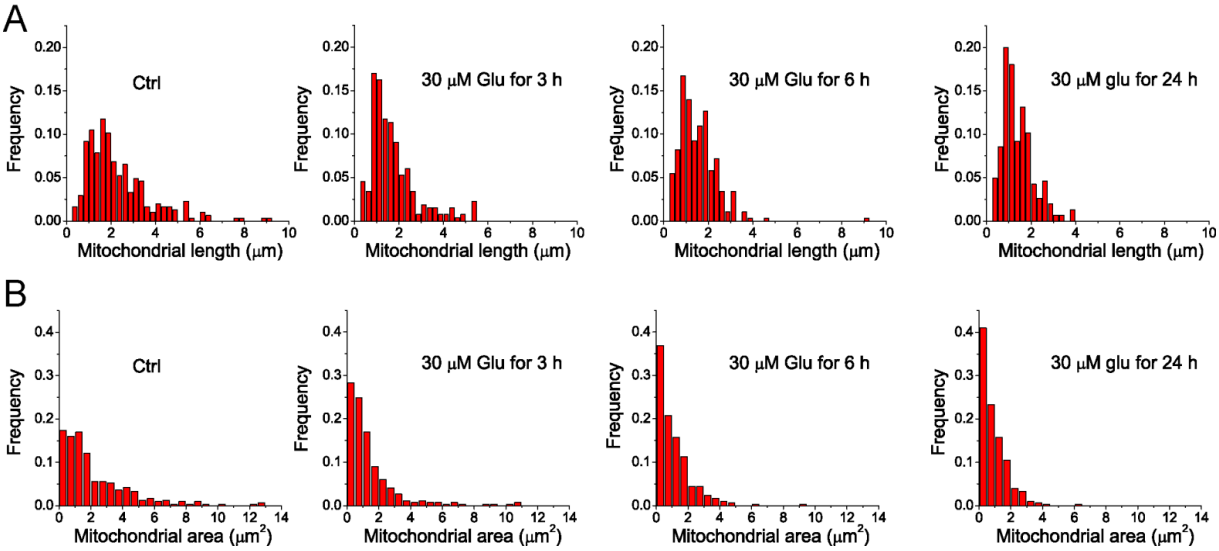

Figure S2. The effect of NAD^+ on the frequency distribution of mitochondrial length and area druing glutamate treatment. Frequency distributions of neuronal mitochondrial length (**A**) and area (**B**) before and after treatment of neurons with 30 mM glutamate and 3 mM glycine for 24 h in the presence or absence of 15 mM NAD^+. The values of histogram interval (bin) are 0.25 μm for mitochondrial length and 0.5 μm^2 for mitochondrial area. Notice that NAD^+ effectively reduced the decrease of mitochondrial length and area after glutamate stimulation.