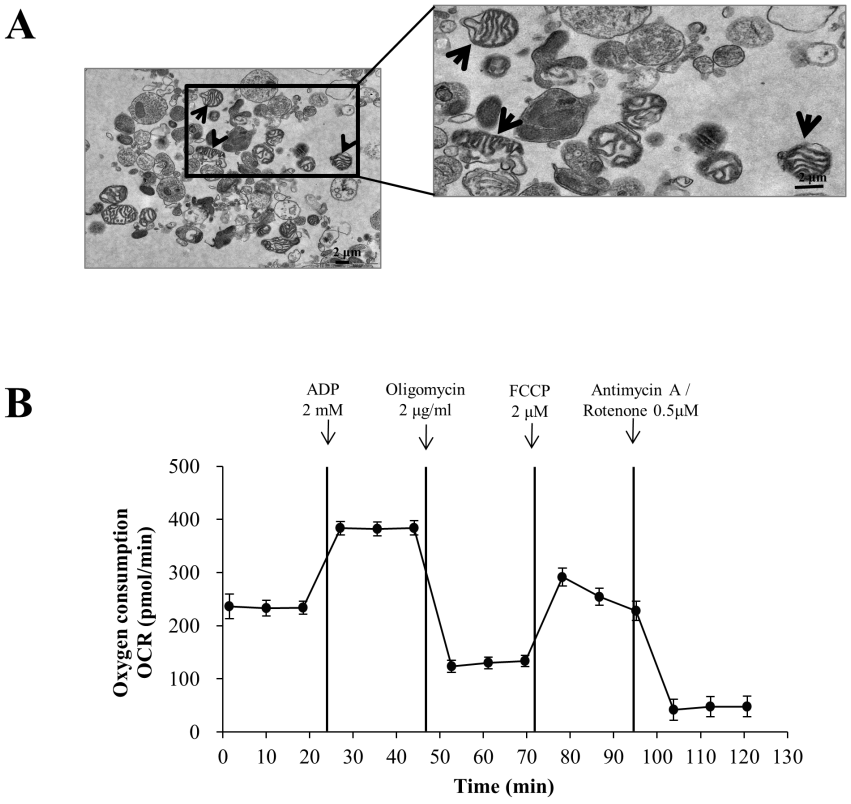
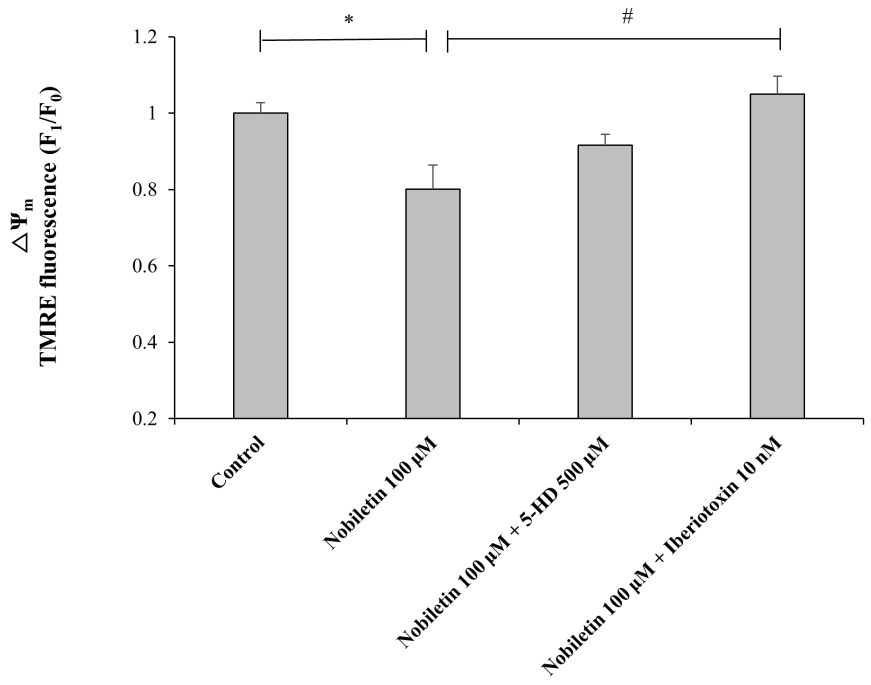


Supplementary Fig. 1. Morphological and metabolic analysis of mitochondria isolated from rat cortices. (A) Representative electron microscope (EM) image. The arrows indicate that cristae structures are well maintained in isolated mitochondria. Scale bar, 2 μm. (B) The oxygen consumption rate (OCR) of isolated mitochondria. OCR data indicate that the isolated mitochondria used in this study are metabolically active and functioning (See 'METHODS' for more detailed description).



Supplementary Fig. 2. The effects of mitochondrial K^+ channel inhibitors on nobiletin-induced $\Delta\Psi_m$ changes in intact cortical neurons. The effects of mitochondrial K^+ channel inhibitors on nobiletin-induced $\Delta\psi_m$ changes were measured in intact cortical neurons using real-time imaging-based fluorometry of $\Delta\psi_m$ (See 'METHODS' in main manuscript for the detailed description). Nobiletin (100 μM) was superfused over cortical neurons on a cover slip in a recording chamber with iberiotoxin (10 nM) as a $_{mito}BK_{Ca}$ channel antagonist and 5-HD (500 μM) as a $_{mito}K_{ATP}$ channel antagonist. TMRE fluorescence values from individual cells were normalized to values before drug treatment. TMRE fluorescence values at the end of the measurement were compared among different groups. Values are the mean±S.E.M. *$p<0.05$ as compared with control group and $^{\#}p<0.05$ as compared with nobiletin alone-treated group.