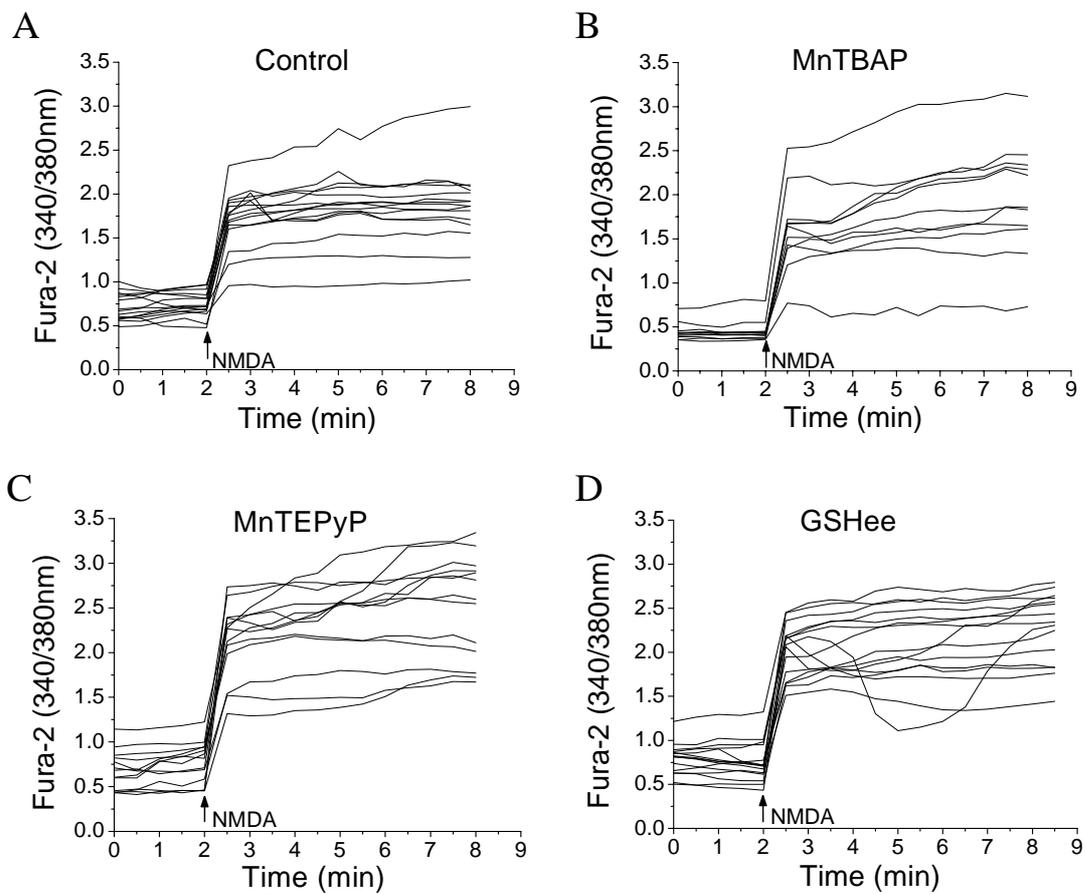


### Figure legends for supplemental data:

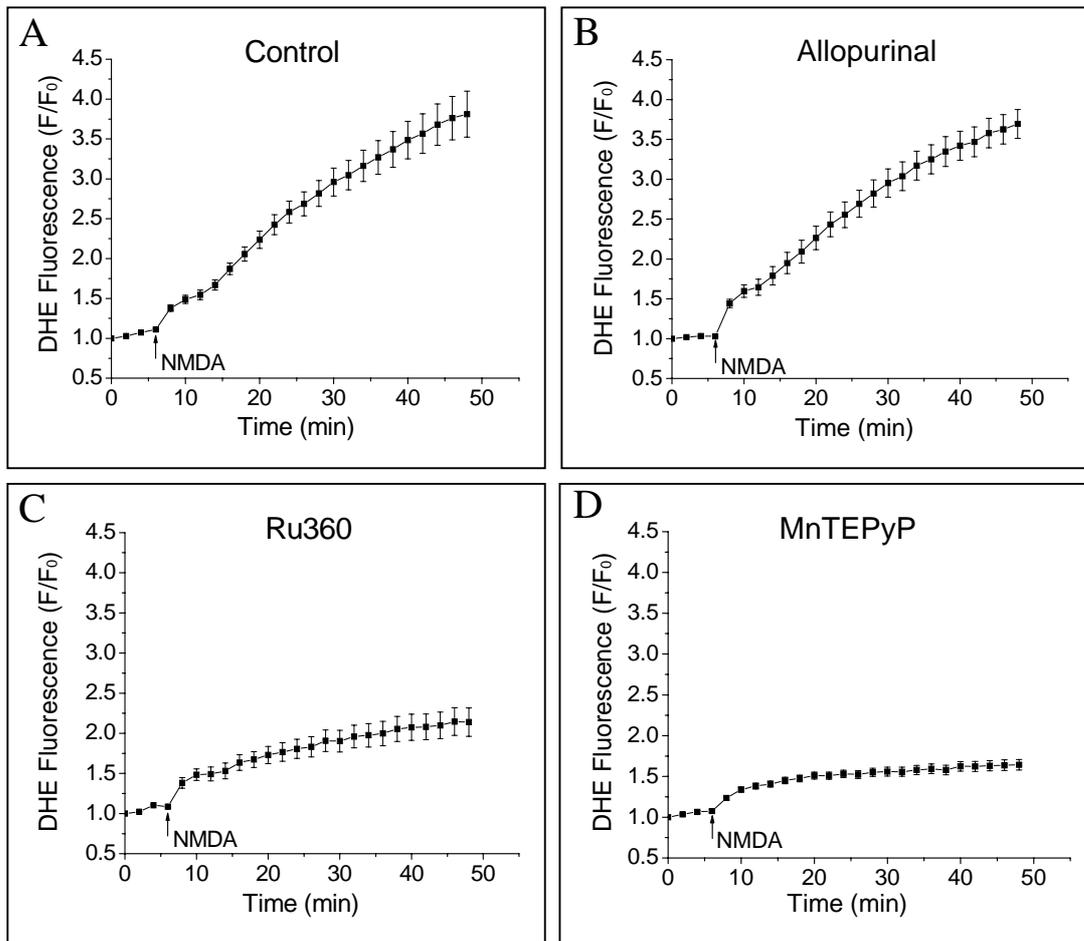
Supplemental figure 1. NMDA-induced increase in intracellular  $\text{Ca}^{2+}$  from cells pretreated with antioxidants. Intracellular  $\text{Ca}^{2+}$  was measured by fura-2 AM (4  $\mu\text{M}$ ). Neurons were treated with 100  $\mu\text{M}$  NMDA and 10  $\mu\text{M}$  glycine (indicated by arrows) in the absence or presence of three antioxidants: MnTBAP (200  $\mu\text{M}$ ), MnTEPyP (20  $\mu\text{M}$ ) and GSHee (1mM). Each trace represents the fluorescent change from a single neuron. There is no significant difference in NMDA-induced intracellular  $\text{Ca}^{2+}$  increase between control and antioxidants pretreated cells.

Supplemental figure 2. NMDA-induced ROS measurement by DHE while the dye was kept in the buffer during experiments. Quantitative analysis of DHE fluorescence during a 50-minute time course. NMDA treatments are indicated by arrows. A) control; B) with allopurinol (20  $\mu\text{M}$ ); C) with Ru360 (10  $\mu\text{M}$ ); D) with MnTEPyP (20  $\mu\text{M}$ ). Data are shown as the ratio of fluorescence at each time point (F) to time 0 min (F0). The trace represents the mean  $\pm$  SEM of 20-30 cells.

## Supplemental Figures



Supplemental Figure 1



Supplemental Figure 2