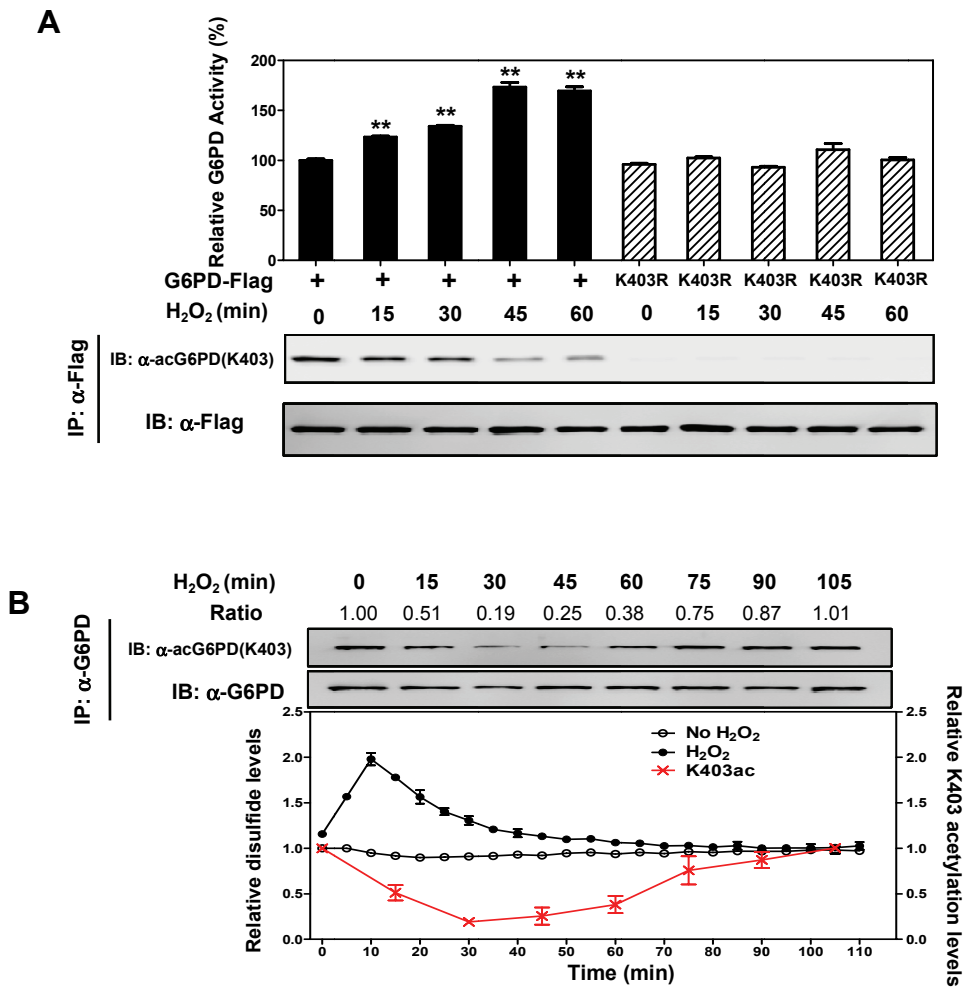
Wang et al. Supplementary Fig.9



Supplementary Fig.9 Dynamic changes in G6PD K403 acetylation and enzyme activity in cells upon H_2O_2 treatment

(A) H_2O_2 treatment decreases G6PD K403 acetylation and activates enzyme activity of ectopically expressed G6PD. Flag-tagged WT G6PD or the K403R mutant was expressed in HEK293T cells and treated with 300 μM H_2O_2 for the indicated periods. The K403 acetylation levels and enzyme activity of Flag-beads purified G6PD were determined by western blot analysis and enzyme assay, respectively. Shown are average values with standard

deviation (S.D.) of triplicated experiments. **denotes the $p < 0.01$ for cells treated with H_2O_2 versus cells without oxidant treatment.

(B) H_2O_2 treatment dynamically changes the K403 acetylation level of endogenous G6PD. HEK293^{roGFP1} cells were treated with H_2O_2 (150 μM) for the indicated periods. The relative disulfide level in the cytoplasm was monitored by using a fluorescent biosensor as described in “Method”. The K403 acetylation level of endogenous G6PD was determined by western blot analysis. Shown are average values with standard deviation (S.D.) of triplicated experiments. Relative G6PD K403 acetylation levels were normalized against G6PD protein levels.