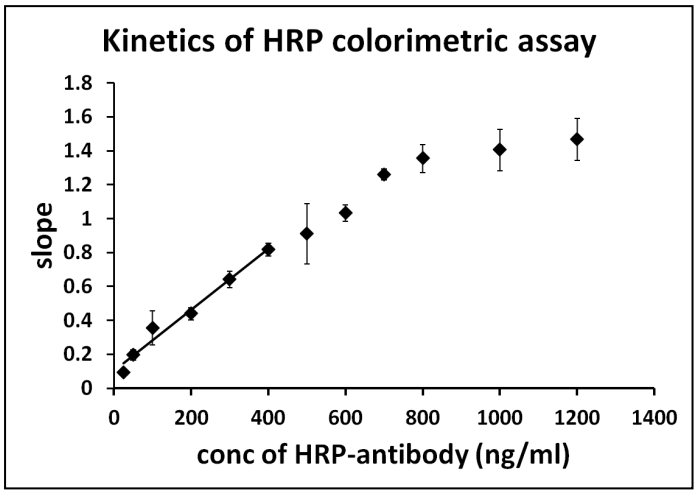
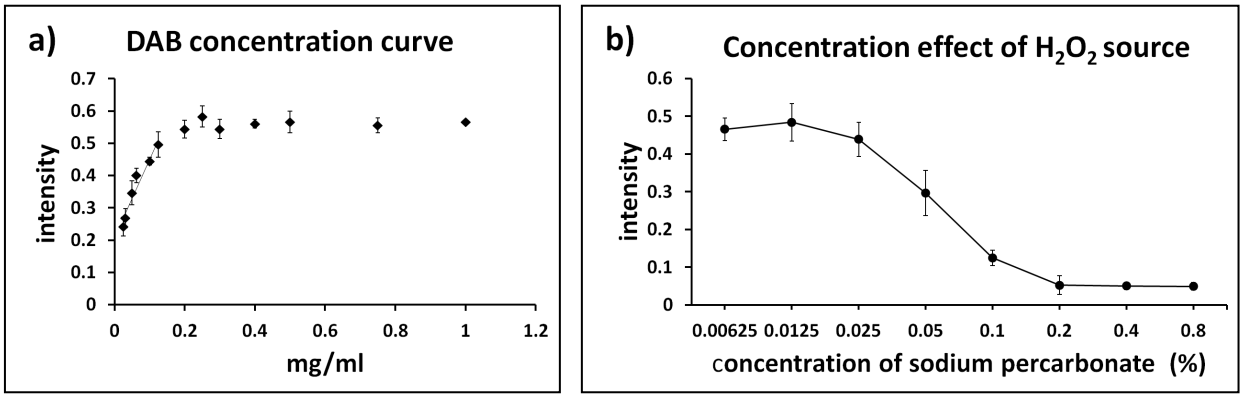
Supplementary Information



Supplementary Fig S1. The initial rate of reaction for varying concentrations of fresh HRP-antibody as determined by colorimetric assay using TMB substrate is shown. A HRP concentration of 200 ng/ml which is in the linear range was chosen for subsequent kinetic measurements in the colorimetric assay that would allow a sensitive measure of enzyme degradation .



Supplementary Fig S2. a) Plot showing the concentration of DAB vs. signal intensity in the lateral flow dipstick assay as described in the experimental section. This was used to determine a concentration within the linear range that would allow a sensitive measure of degradation of DAB. Based on this 0.125 mg/ml was chosen for dry storage testing. b) Plot showing the effect of concentration of hydrogen peroxide source on the signal development in the dipstick assay. As seen, H_2O_2 can rapidly and irreversibly inhibit the HRP enzyme when concentrations higher than 0.05% are used. A concentration of 0.025% sodium percarbonate was used for all dipstick immunoassays.