Supporting Information for

In situ detection of silk fibroin using a dual recognition strategy with a flexible pressure immunosensor

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Detection of Silk Fibroin Using Indirect ELISA

The silk fibroin antigen was diluted with coated buffer into different concentrations (1 ng/mL to 100 μg/mL), 100 μL was added into the reaction hole of each enzymic label plate and placed in the refrigerator at 4 ℃ overnight. On the next day, the solution in the hole was discarded, and 150 μL of Phosphate Buffered Saline with Tween-20 (PBST) washing solution was added to each hole for washing and repeated 4 times. Each well was sealed with 150 μL 1% (Bovine serum albumin) BSA (prepared with PBS buffer) and incubated at 37 ℃ for 1 h. Discard the sealer and repeat the washing step 3 times. Dilute fibroin antibody (1:1000, diluted with diluent) was added, 100 μL per reaction hole, and incubated at 37 ℃ for 1 h. Discard the unbound liquid and repeat the washing step 3 times. Freshly diluted secondary antibody-HRP (1:5000, diluted with diluent) was added to each reaction well with 100 μL per well and incubated at 37 ℃ for 1 h. Discard the unbound liquid, repeat the above washing steps 5 times, and add TMB color developing solution to each reaction hole, in which liquid A 50 μL and liquid B 50 μL. Place at room temperature and avoid light for 10 min. Add 100 μL of 1 M sulfuric acid solution to each reaction hole. The enzyme plate was placed in a preheated enzyme marker and read at OD_{450nm}, then the data was analyzed.