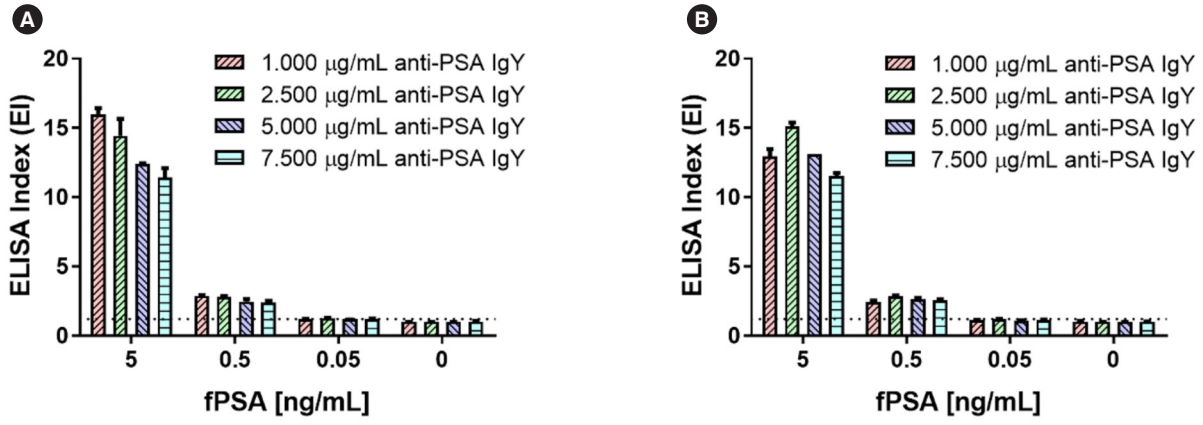
ANNALS OF LABORATORY MEDICINE

# SUPPLEMENTAL MATERIALS

## Optimization of the IgY-Based ELISA

Optimization of the IgY-based ELISA for PSA detection was performed for different concentrations of PSA-specific mouse monoclonal IgG and avian polyclonal IgY antibodies (Supplemental Data Fig. S1). The microtiter plate was coated with an anti-PSA mouse monoclonal IgG antibody, blocked, and incubated with fPSA at different concentrations (5.000, 0.500, and 0.050 ng/mL). For the detection of an antigen, affinity purified anti-PSA IgY antibodies were used at different concentrations (1.000, 2.500, 5.000, and 7.500 μg/mL). The results are presented as EI±SEM values. As optimal conditions, we assumed both antibody concentrations were 2.500 μg/mL because of the highest ELISA Index (where $EI = OD_{sample}/OD_{control}$). Values of >1.200 were considered positive [36] for 50.000 pg/mL of PSA protein, which was determined as the detection limit, as previously shown [16].




**Supplemental Data Fig. S1.** Optimization of IgY-based sandwich ELISA for two different concentrations of IgY antibodies (A. 2.500 μg/mL, B. 5.000 μg/mL).
Abbreviation: fPSA, free prostate specific antigen.