Label-free, ITO-based immunosensor for the detection of a cancer biomarker; Receptor for Activated C Kinase 1

Elif Burcu Bahadıra, Mustafa Kemal Sezgintürkb*

^aNamık Kemal University, Scientific and Technological Research Center, Tekirdağ-TÜRKİYE

^bNamık Kemal University, Faculty of Science, Chemistry Department,

Biochemistry Division, Tekirdağ-TÜRKİYE

*Corresponding Author:

e-mail: msezginturk@hotmail.com

msezginturk@nku.edu.tr

Tel:+90 282 250 26 05

Supplemental Information

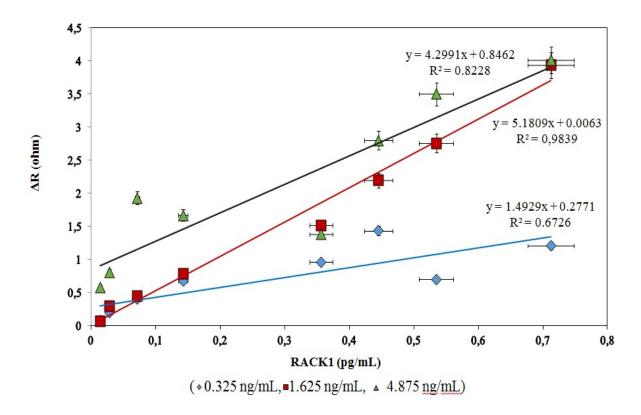


Figure 1. The effect of anti-RACK1 antibody concentrations on the biosensor response

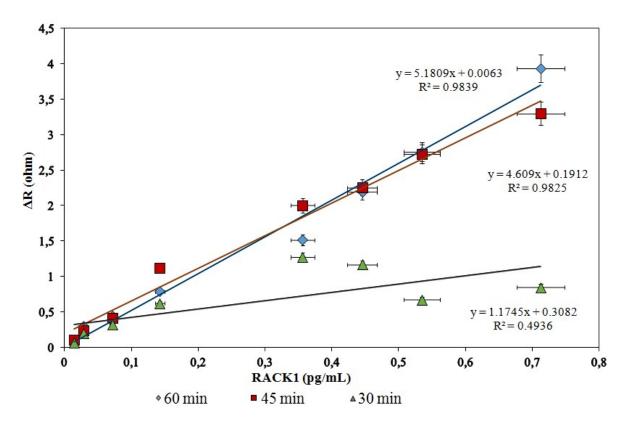


Figure 2. RACK1 calibration curves obtained for different anti-RACK1 incubation periods

Artificial serum sample analyses results

6 different artificial serum samples were analysed by the immunosensor and corresponding results are given in Supp.info. Table 1. The recovery of the immunosensor was found to be between 96.09 % and 101.83%. The results illustrated that; the new ITO based immunosensor can be used successfully in RACK1 quantification in the samples.

Added (fg/mL)	Found by biosensor (fg/mL)	% Recovery	% Relative difference
28.5	28.67	100.58	+0.59
14.25	145.12	101.83	+1.83
356.25	356.94	100.19	+0.19
445.31	444.55	99.83	-0.17
534.75	513.86	96.09	-3.91
712.5	722.91	101.46	+1.46