Supplementary Information

SI 1. Determination of the Optimal Conditions of the Fluorescent Analysis

The measuring the fluorescence intensity of proteins was carried out by several ways: using different microplates (using microplate reader) and in the cuvette (using a fluorometer). The presence of the second fluorescence peak (at 420 nm) besides the main peak (at 350 nm) for the same samples was observed only for measurement of fluorescence in white microplates Nunc MaxiSorp (Roskilde, Denmark) (Figure S1). The second peak is a result of the surface reflecting properties of these microplates. Black microplates Nunc MaxiSorp (Roskilde, Denmark) and Costar 9018 (Corning Inc., New York, NY, USA) were also used for this investigation. The studies revealed that the average error of the fluorescence intensity in different replicates using microplates is significantly lower compared to the cuvette option. Moreover, applying the microplates allows to carry out faster measurements than in the cuvette, enabling more statistics gathering. The best signal-to-noise ratio was observed using white microplates Nunc MaxiSorp (Figure S2) (signal-to-noise ratio for BSA 500 µg/mL at 350 nm: 190 for nunc white, 63 for nunc black, and 10 for costar). The presence of the second peak on the fluorescence spectrum using this type of microplates did not violate the linearity of the calibration curve for determining of the protein concentration and as well as the accuracy of measurements. Thereby, in accordance with an array of data, we concluded that the most accurate information can be obtained when using the microplate assay applying white microplates Nunc MaxiSorp.

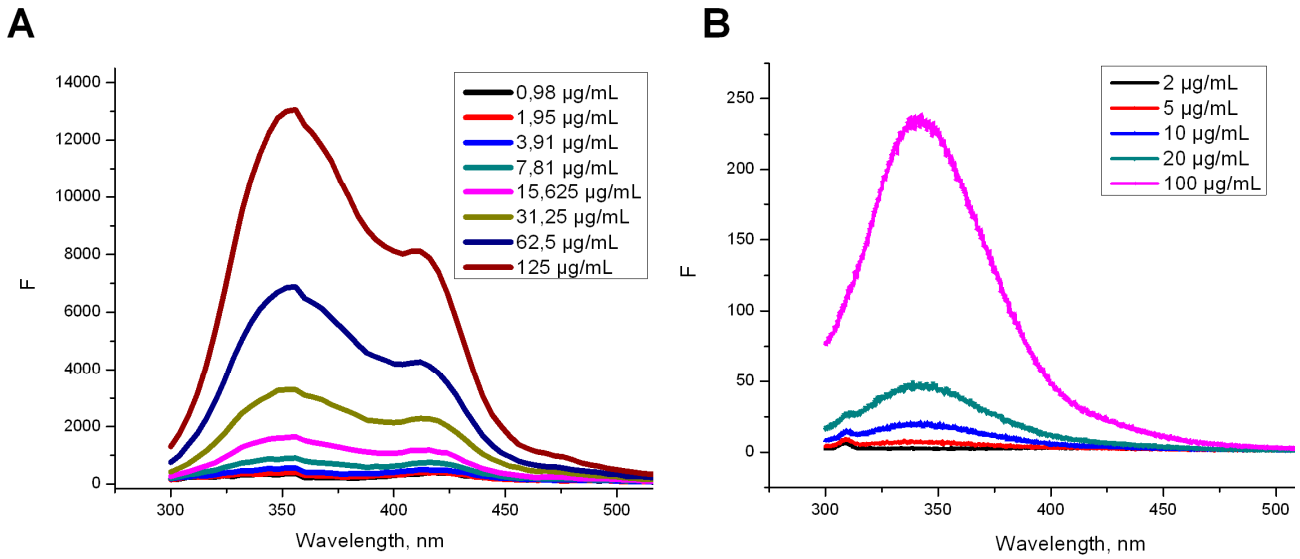

Figure S1. (**A**) Fluorescence of BSA in white microplates Nunc MaxiSorp; (**B**) Fluorescence of BSA in a quartz cuvette 10 mm.

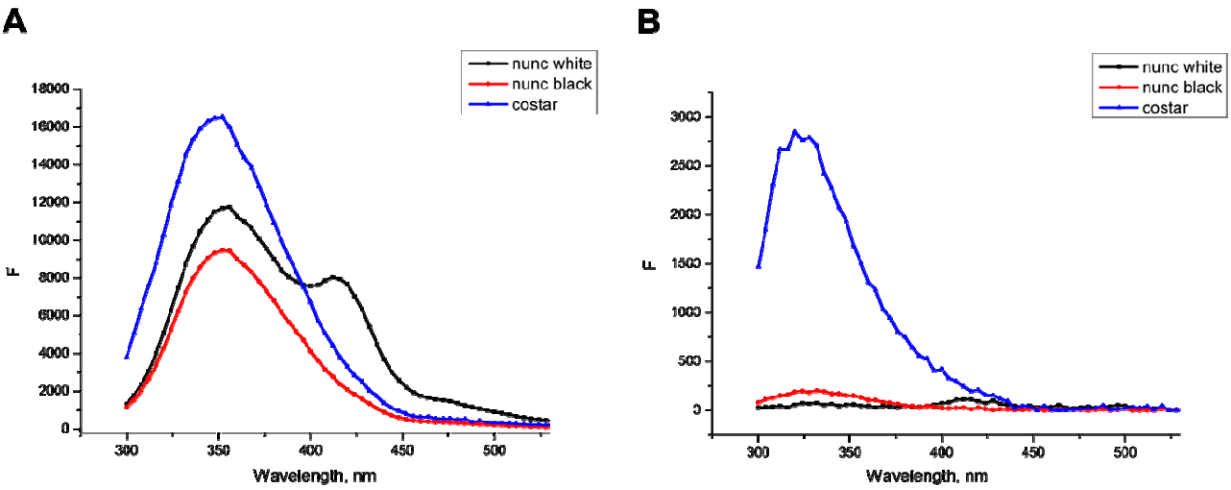

Figure S2. (**A**) Fluorescence of BSA (500 μg/mL) in microplates of three types; (**B**) Background signal in microplates of three types.