

Specific immunoglobulins against sars-cov-2 in human samples and its validation with the elisa technique

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Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is an RNA virus responsible for the pandemic that started in March 2020 and caused over 2.1 million deaths worldwide. Therefore, it is necessary to test the majority of the population in a fast, cheap, easily, and reliable manner. In this work we report the development of a novel in vitro diagnostic system based on biophotonic sensing cells (BICELLS) (figure 1) [1-3] to detect specific immunoglobulins in serum and saliva against SARS-CoV-2. This system aims the label-free detection of anti-SARS-CoV-2 IgG, IgM, and IgA of patients testing PCR-positive (figure 1), using the interferometric optical detection method (IODM). The results obtained were correlated and validated with those obtained by ELISA observing a significant correlation between the two techniques.

References

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Figures

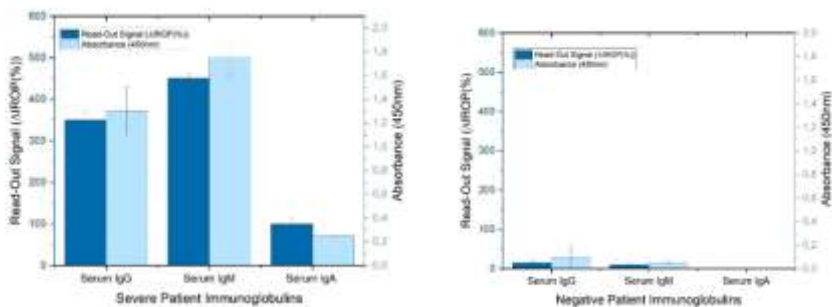


Figure 1: On the right are presented the results obtained for the antibody titers for a PCR-positive patient against SARS-CoV-2 measured by ELISA and IODM. On the left is the case of a negative patient.