

Proteome-Wide IgA and IgG Epitope Mapping of COVID-19 Patient Sera

PEPperPRINT and the Institute of Virology of the Charité team up to characterize IgA and IgG antibodies against SARS-CoV-2 on the epitope level.

Experimental setup

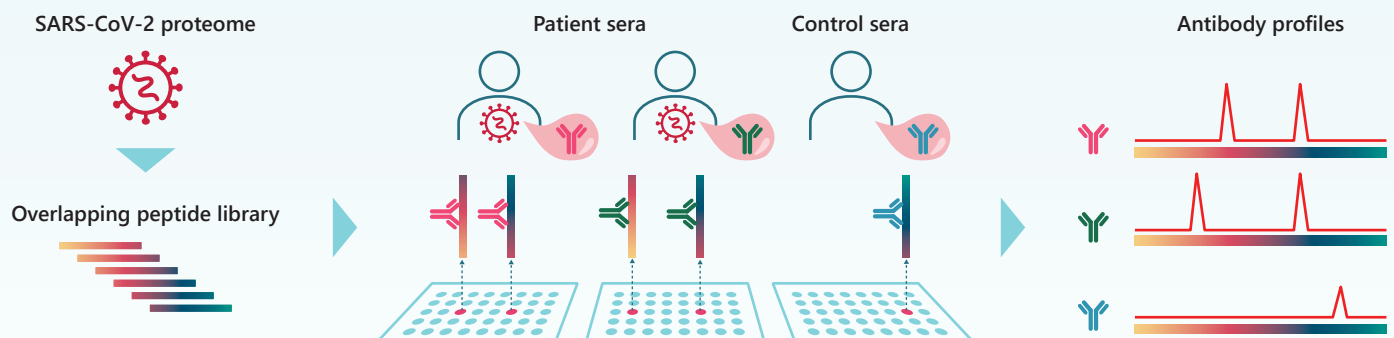


Fig. 1. Antibody profiling workflow using the PEPperCHIP® SARS-CoV-2 Proteome Microarray. The entire SARS-CoV-2 viral proteome is translated into overlapping peptides and printed onto glass slides. Patient sera is incubated on the chip and antibodies present in the sample bind to epitopes recognized within individual peptides, resulting in unique patient-specific antibody profiles.

First results

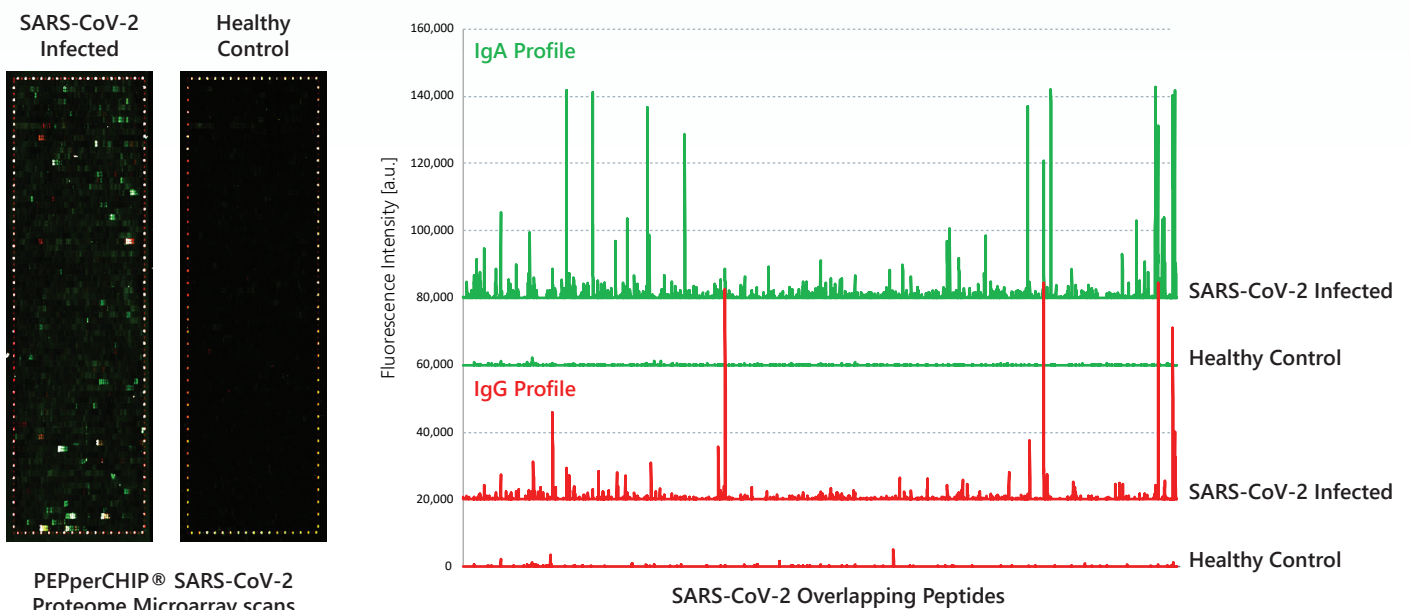


Fig. 2. Differential IgA and IgG responses to SARS-CoV-2 infection. LEFT: Representative scans of PEPperCHIP® SARS-CoV-2 Proteome Microarray chips incubated with sera collected from infected and non-infected donors. RIGHT: Fluorescence intensity plots showing differential IgA and IgG responses across the SARS-CoV-2 proteome quantified from the microarray scan readouts.