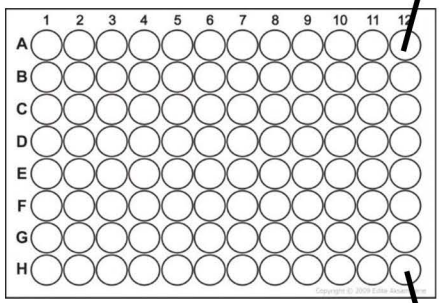
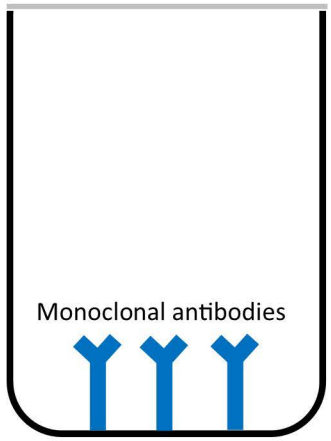
Patient 1 Sample

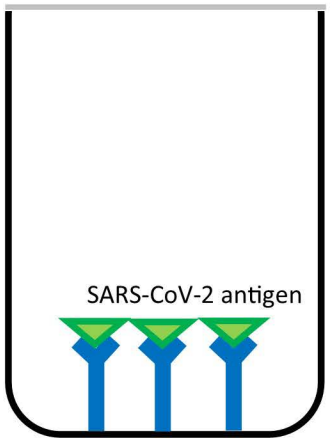
(has an active, detectable SARS-CoV-2 infection)



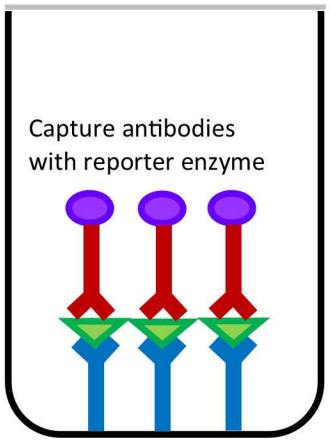
96-well plate



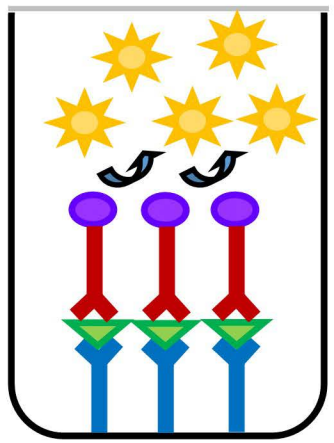
96-well plate is coated in monoclonal antibodies specific to SARS-CoV-2-specific antigens (often nucleocapsid). If the virus is present in the sample, specific binding of the two will occur.



Patient sample is added to the well and the plate is incubated. Coated monoclonal antibodies will bind to SARS-CoV-2 antigen, forming an antibody-antigen complex.



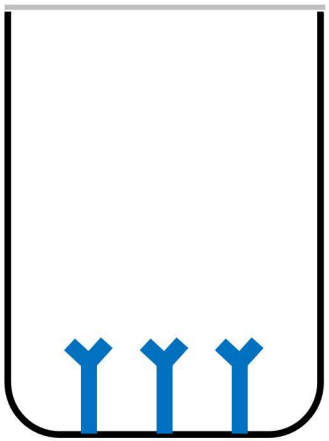
A secondary capture antibody is added to the well. This antibody will bind to the antibody-antigen complex. The secondary antibody is tagged with an enzyme that will allow for luminescence readout in the final steps.

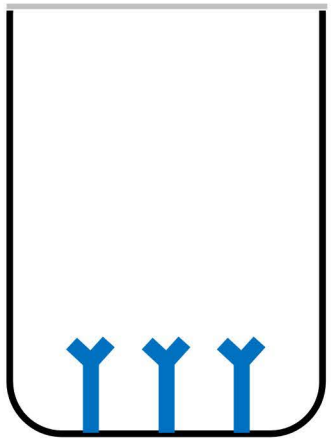


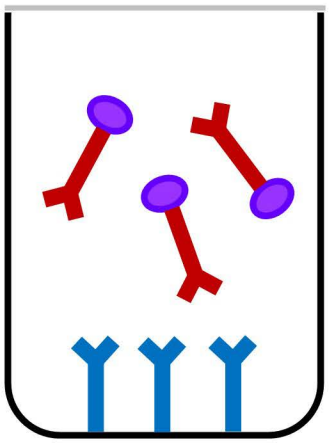
A substrate is added which causes a chemical reaction with the tagged secondary antibody. The chemical reaction produces light and the luminescence can be used to detect and/or quantify the level of SARS-CoV-2 antigen in the sample.

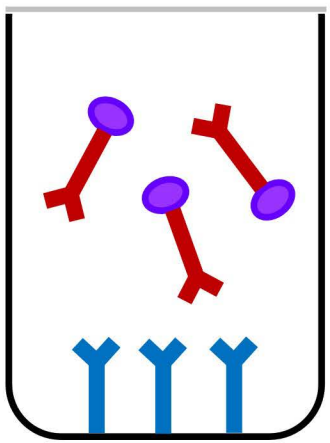
Patient 2 Sample

(does not have a detectable SARS-CoV-2 infection)









Fluorescence or luminescence only occurs in presence of SARS-CoV-2 antigen