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(54) Title: LATERAL FLOW DEVICE FOR DETECTION OF CORONAVIRUS INFECTION

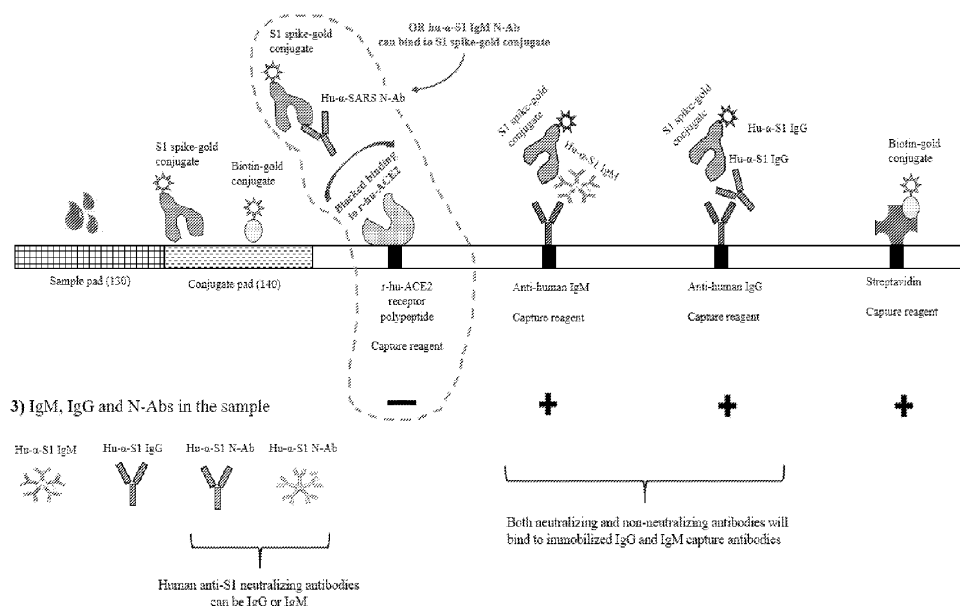


FIG. 8

(57) Abstract: The present disclosure provides a lateral flow device, and methods of use of the device, for accurately and rapidly detecting a COVID-19 infection in a subject. The lateral flow device described herein detects in a liquid sample from the subject the presence or absence of neutralizing and non-neutralizing anti-S1 spike antibodies as IgM and IgG types. The anti-S1 antibodies neutralizing antibodies (e.g., both IgM and IgG) can block binding between ACE2 antigen and S1 spike protein which is the basis for the design of the lateral flow device.

[Continued on next page]

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