SARS CoV-2 Nucleocapsid Protein-mediated Enhancement of Spike-pseudotyped Lentivirus Infectivity and Loss of Sensitivity to Neutralisation

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The SARS CoV-2, an RNA virus, invades cells via an ACE2-binding dependent entry mechanism.

Lentiviral pseudotyping-based approaches have been used to model and study the viral entry process, using the spike glycoprotein as the envelope.

To investigate whether other viral proteins could also impact pseudovirus infectivity, twenty-three SARS CoV-2 proteins were individually included in the lentiviral pseudotyping process.

A dual reporter expressing firefly luciferase and fluorescent ZsGreen protein was used.