Title:	Robust anti-SARS-CoV2 single domain antibodies cross neutralize multiple viruses.
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Abstract:	We report robust SARS-CoV2 neutralizing sdAbs targeting the viral peptides encompassing the polybasic cleavage site (CSP) and in the receptor binding domain (RBD) of the spike (S) protein. Both the sdAbs inhibited infectivity of the CoV2 S protein expressing pseudoviruses (LV-CoV2S). Both anti-CSP and RBD intrabodies (IB) inhibited the output of LV(CoV2 S). Anti-CSP IB altered the proteolytic processing and targeted the viral S protein for degradation. Because of cross-reactive CSPs in the entry mediators, the anti-CSP sdAb neutralized in vitro and in vivo the infectivity of SARS-CoV2 unrelated viruses such as herpes simplex virus 1 (HSV1) and pestes des petits ruminants virus (PPRV). Conversely, anti-HSV1 and anti-PPRV sera neutralized LV(CoV2 S) owing to the presence of CSP reactive antibodies indicating that a prior infection with such pathogens could impact on the pattern of COVID-19.
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