

Table 1. Experimental *in vivo* studies on susceptible and non-susceptible animals to SARS-CoV-2 and COVID-19-like disease.

Methods	Susceptible to SARS-CoV-2 or COVID-like Disease	Not Susceptible	Reference
Intranasal inoculation with 10^5 to 10^6 PFU SARS-CoV-2.	Ferrets and cats (n = 10 and 20, respectively; 13-day follow up): <ul style="list-style-type: none"> Viral shedding in nose and rectum. Antibody responses present. Mild histopathological changes in pulmonary tissues. Viral transmission by aerosols in cats. No COVID-19-like clinical symptoms. 	Dogs (n = 7), pigs, chickens, and ducks (n = 8 each).	Shi et al. ¹
	Tree shrew (n = 38; 16-day follow-up): <ul style="list-style-type: none"> Viral shedding in nose, throat, and anus. Mild histopathological signs in pulmonary tissues. No COVID-19-like clinical symptoms. 	N/A	Zhao et al. ²
	Cats and dogs (n = 7 and 3, respectively; 7-day follow-up): <ul style="list-style-type: none"> Viral shedding in nose and throat in cats. Antibody responses present. Mild histopathological signs in pulmonary tissues. No COVID-19-like clinical symptoms. 	N/A	Bosco-Lauth et al. ³
Intranasal, intratracheal, oral, and ocular inoculation with 5×10^5 PFU SARS-CoV-2.	Cats (n = 6; 10-day follow-up): <ul style="list-style-type: none"> Viral shedding in nose. Antibody responses present. No COVID-19-like clinical symptoms. Viral transmission by direct contact and aerosols. 	N/A	Halfmann et al. ⁴
Intranasal and oral inoculation with 10^6 TCID ₅₀ SARS-CoV-2	Cats (n = 10; 21-day follow-up): <ul style="list-style-type: none"> Viral shedding in nose, throat, and rectum. Antibody responses present. 	N/A	Gaudreault et al. ⁵

¹ Shi, J., Wen, Z., Zhong, G., Yang, H., Wang, C., Huang, B., et al. (2020). Susceptibility of ferrets, cats, dogs, and other domesticated animals to SARS-coronavirus 2. *Science* (New York, N.Y.), 368(6494), 1016–1020. <https://doi.org/10.1126/science.abb7015>

² Zhao, Y., Wang, J., Kuang, D., Xu, J., Yang, M., et al. (2020). Susceptibility of tree shrew to SARS-CoV-2 infection. *Scientific reports*, 10(1), 16007. <https://doi.org/10.1038/s41598-020-72563-w>

³ Bosco-Lauth, A. M., Hartwig, A. E., Porter, S. M., Gordy, P. W., Nehring, M. et al. (2020). Experimental infection of domestic dogs and cats with SARS-CoV-2: Pathogenesis, transmission, and response to reexposure in cats. *Proceedings of the National Academy of Sciences of the United States of America*, 117(42), 26382–26388. <https://doi.org/10.1073/pnas.2013102117>

⁴ Halfmann, P. J., Hatta, M., Chiba, S., Maemura, T., Fan, S., et al. (2020). Transmission of SARS-CoV-2 in Domestic Cats. *The New England journal of medicine*, 383(6), 592–594. <https://doi.org/10.1056/NEJMc2013400>

⁵ Gaudreault, N. N., Trujillo, J. D., Carossino, M., Meekins, D. A., Morozov, I., et al. (2020). SARS-CoV-2 infection, disease and transmission in domestic cats. *Emerging microbes & infections*, 1–36. Advance online publication. <https://doi.org/10.1080/22221751.2020.1833687>

	<ul style="list-style-type: none"> • Mild-to-moderate histopathological signs in pulmonary tissues. • No COVID-19-like clinical symptoms. • Viral transmission by direct contact. 		
Intranasal, intratracheal, oral, and ocular inoculation with 10 ⁵ to 10 ⁶ TCID ₅₀ SARS-CoV-2.	Rhesus macaques (n = 8; 20-day follow-up): <ul style="list-style-type: none"> • Viral shedding in nose, throat, and rectum. • Antibody responses present. • Moderate histopathological signs in pulmonary tissues. • Mild-to-moderate COVID-19-like clinical symptoms. 	N/A	Munster et al. ⁶
	Rhesus macaques (n = 8; 21-day follow-up): <ul style="list-style-type: none"> • Viral shedding in nose, throat, and rectum. • Antibody responses present. • Moderate histopathological signs in pulmonary tissues. • No COVID-19-like clinical symptoms. 	N/A	Rockx et al. ⁷
Intranasal inoculation with 10 ⁴ to 10 ⁵ TCID ₅₀ SARS-CoV-2.	Fruit bats and ferrets (n = 12 each; 21-day follow-up) <ul style="list-style-type: none"> • Viral shedding in nose and rectum. • Antibody responses present. • Mild histopathological signs in pulmonary tissues. • No COVID-19-like clinical symptoms. • Viral transmission by direct contact. 	Pigs and chickens (n = 9 and 17, respectively; 21-day follow-up).	Schlottau et al. ⁸
	Golden hamsters (n = 10; 14-day follow-up): <ul style="list-style-type: none"> • Viral shedding in nose. • Antibody responses present. • Mild histopathological signs in pulmonary tissues. • Mild COVID-19-like clinical symptoms. • Viral transmission by direct contact and aerosols. 	N/A	Sia et al. ⁹
	Raccoon dogs (n = 9; 28-day follow-up): <ul style="list-style-type: none"> • Viral shedding in nose, throat, and rectum. • Antibody responses present. • Mild histopathological signs in pulmonary tissues. 	N/A	Freuling et al. ¹⁰

⁶ Munster, V.J., Feldmann, F., Williamson, B.N. et al. Respiratory disease in rhesus macaques inoculated with SARS-CoV-2. *Nature* 585, 268–272 (2020).

<https://doi.org/10.1038/s41586-020-2324-7>

⁷ Rockx, B., Kuiken, T., Herfst, S., Bestebroer, T., Lamers, M. M., et al. (2020). Comparative pathogenesis of COVID-19, MERS, and SARS in a nonhuman primate model. *Science* (New York, N.Y.), 368(6494), 1012–1015. <https://doi.org/10.1126/science.abb7314>

⁸ Schlottau, K., Rissmann, M., Graaf, A., Schön, J., Sehl, J., et al. (2020). SARS-CoV-2 in fruit bats, ferrets, pigs, and chickens: an experimental transmission study. *The Lancet. Microbe*, 1(5), e218–e225. [https://doi.org/10.1016/S2666-5247\(20\)30089-6](https://doi.org/10.1016/S2666-5247(20)30089-6)

⁹ Sia, S.F., Yan, L., Chin, A.W.H. et al. Pathogenesis and transmission of SARS-CoV-2 in golden hamsters. *Nature* 583, 834–838 (2020). <https://doi.org/10.1038/s41586-020-2342-5>

¹⁰ Freuling CM, Breithaupt A, Müller T, Sehl J, Balkema-Buschmann A, Rissmann M, et al. Susceptibility of raccoon dogs for experimental SARS-CoV-2 infection. *Emerg Infect Dis.* 2020 Dec [date cited]. <https://doi.org/10.3201/eid2612.203733>

	<ul style="list-style-type: none"> • No COVID-19-like clinical symptoms. • Viral transmission by direct contact. 		
	New Zealand white rabbit (n = 3; 21-day follow-up): <ul style="list-style-type: none"> • Viral shedding in nose, throat, and rectum. • Antibody responses present. • Mild histopathological signs in pulmonary tissues. • No COVID-19-like clinical symptoms. 	N/A	Mykytyn et al. ¹¹
	Cattle (n = 6; 20-day follow-up): <ul style="list-style-type: none"> • Viral shedding in nose. • Antibody responses present. • No COVID-19-like clinical symptoms. • No transmission by direct contact. 	N/A	Ulrich et al. ¹²

Abbreviation: PFU, plaque-forming units; TCID50, tissue culture infectious dose 50

¹¹ Mykytyn AZ, Lamers MM, Okba NM, et al. Susceptibility of rabbits to SARS-CoV-2. bioRxiv; 2020. DOI: 10.1101/2020.08.27.263988.

¹² Ulrich L, Wernike K, Hoffmann D, Mettenleiter TC, Beer M. Experimental infection of cattle with SARS-CoV-2. bioRxiv; 2020. DOI: 10.1101/2020.08.25.254474.