Fig. S1



Figure S1. SARS-CoV-2 N protein RNA in swab samples of infected macaques detected by realtime quantitative PCR.

Viral RNA was extracted from swab samples of (A) eye, (B) nasal cavity, (C) oral cavity, (D) trachea, (E) bronchus, and (F) rectum. SARS-CoV-2 N protein gene was amplified and quantified by real-time PCR.







CE0202M CE0324F CE1242F

Figure S3. Number of BALTs in macaques infected with SARS-CoV-2.

Lung tissues were collected on day 28 after virus inoculation. (A, B) BALTs in the lung tissue of CE0202M (A) and CE1242F (B). (C) The number of BALTs in 8 H&E sections of 6 lobes in each macaque was counted by detection of follicle-like structures composed of densely packed lymphocytes, of which the shortest diameter exceeded 0.1 mm, and flanked by the bronchus or vessels. The averages and standard deviations of the number of BALTs in 8 sections are shown. Unpaired t test (2 tailed) was performed.





Figure S4. Plasma IgG specific for SARS-CoV-2 S and N protein.

Blood samples were collected from macaques day 0, 7, 14, 21 and 28. IgG specific for SARS-CoV-2 S and N protein was detected in CE0324F and CE1242F



Figure S5. T-lymphocyte responses specific for SARS-CoV-2 S protein peptides.

Peripheral blood cells collected from macaques on day 0 and 28 were cultured for 24 h with peptides derived from SARS-CoV-2 S protein. The numbers of IFN- γ -positive cells (A) and IL-2-positive cells (B) were counted using an ELISPOT analyzer. Peptide-specific responses were indicated as a stimulation index = number of spots in the culture with peptides/number of spots in the culture without peptides.

Table S1. Tissues collected at autopsy

Respiratory tissue	Brain	Digestive organs	Other organs
Nasal mucosa	Frontal lobe	Liver	Heart
Oro-nasopharynx	Temporal lobe	Jejunum	Spleen
Tonsil	Parietal lobe	lleum	Kidney
Trachea	Occipital lobe	Transverse colon	Muscle
Bronchus	Olfactory bulb	Descending colon	Uterus
Lung, 6 lobes	Cerebellum	Rectum	Ovary
Lymph node, mediastinum	Brain stem		Testis
			Conjunctiva
			Eyeball

The tissues were collected on day 28 to prepare 10% (w/v) homogenates and to titrate for virus detection. No virus was detected in the listed tissues.

Parameter	Degree of parameter	Possible
		score
Fever	Normal (< 39°C)	0
	Elevated temperature (39-40°C)	3
	High temperature (> 40°C)	5
Posture	Piloerection of body hair	1
	Decreased activity, decreasing normal behavior/Occasionally lying down, huddled, active when people in room	2
	Huddled on camera, active when people in room/Lying down, getting up when approached, using cage for support	3
	Huddled when people in room, shaking, toes and hands clenched/Lying down, not getting up when approached or prompted	5
Respiration	Increased or decreased; mild cough and clear nasal discharge	3
	Labored breathing through mouth; severe cough and severe nasal discharge	5
Appetite	Slightly decreased	1
	Decreased	2
	Severely decreased	5
Skin	Flushed appearance	2
	Visible rash	2
	Bleeding	5

Table S2. Clinical scoring used in the present study

Animals were monitored every day during the study to be clinically scored. Animals were euthanized if their clinical scores reached 15 (a humane endpoint).