

Resource Summary Report

Generated by [dkNET](#) on Aug 26, 2026

HDM-SARS2-Spike-delta21

RRID:Addgene_155130

Type: Plasmid

Proper Citation

RRID:Addgene_155130

Plasmid Information

URL: <http://www.addgene.org/155130>

Proper Citation: RRID:Addgene_155130

Insert Name: SARS-CoV-2 Spike-delta21

Organism: Severe acute respiratory syndrome coronavirus 2

Bacterial Resistance: Ampicillin

Defining Citation: [PMID:32384820](#)

Vector Backbone Description: Backbone Size:4750; Vector Backbone:HDM; Vector Types:Mammalian Expression, Lentiviral; Bacterial Resistance:Ampicillin

Comments: Based on a plasmid described previously in Crawford et al. 2020, Protocol and Reagents for Pseudotyping Lentiviral Particles with SARS-CoV-2 Spike Protein for Neutralization Assays (<https://www.mdpi.com/1999-4915/12/5/513>). This is a version of the Spike expression plasmid used to pseudotype lentivirus which provided better titers in this protocol.

Plasmid Name: HDM-SARS2-Spike-delta21

Relevant Mutation: Codon optimized to H. sapiens using IDT codon optimization tool; deleted 21 amino acids by deletion from 3769-3831

Record Creation Time: 20220422T221850+0000

Record Last Update: 20260815T080759+0000

Ratings and Alerts

No rating or validation information has been found for HDM-SARS2-Spike-delta21.

No alerts have been found for HDM-SARS2-Spike-delta21.

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We found 20 mentions in open access literature.

Listed below are recent publications. The full list is available at [dkNET](#) .

Erendor F, et al. (2026) An Ad5-Based COVID-19 Vaccine Encoding SARS-CoV-2 Spike Glycoprotein Induces Measurable Antibody and Cytokine Responses in Mice. *Biotechnology journal*, 21(3), e70216.

Wang J, et al. (2026) Redirection of SARS-CoV-2 to phagocytes by intranasal sACE2-Fc as a universal decoy confers complete prophylactic protection. *eLife*, 14.

Pivniouk V, et al. (2025) IL-13 protects epithelial cells from SARS-CoV-2 infection by inhibiting ACE2-mediated virus binding and cell entry. *ImmunoHorizons*, 9(12).

Gonzales J, et al. (2025) Development of an ultrahigh affinity, trimeric ACE2 biologic as a universal SARS-CoV-2 antagonist. *Communications biology*, 8(1), 1428.

Sahin F, et al. (2025) Membrane-targeted immunogenic compositions using exosome mimetic approach for vaccine development against SARS-CoV-2 and other pathogens. *Scientific reports*, 15(1), 10899.

Milewska A, et al. (2025) Evolution of the SARS-CoV-2 spike protein in utilizing host transmembrane serine proteases. *iScience*, 28(9), 113318.

Xu D, et al. (2024) Vaccine design via antigen reorientation. *Nature chemical biology*, 20(8), 1012.

Weidenbacher PA, et al. (2023) A ferritin-based COVID-19 nanoparticle vaccine that elicits robust, durable, broad-spectrum neutralizing antisera in non-human primates. *Nature communications*, 14(1), 2149.

Weidenbacher PA, et al. (2023) Decreased efficacy of a COVID-19 vaccine due to mutations present in early SARS-CoV-2 variants of concern. *bioRxiv : the preprint server for biology*.

Sun X, et al. (2022) Nanobody-Functionalized Cellulose for Capturing SARS-CoV-2. *Applied and environmental microbiology*, 88(5), e0230321.

Weidenbacher PA, et al. (2022) Converting non-neutralizing SARS-CoV-2 antibodies into broad-spectrum inhibitors. *Nature chemical biology*, 18(11), 1270.

Fiskin E, et al. (2022) Single-cell profiling of proteins and chromatin accessibility using PHAGE-ATAC. *Nature biotechnology*, 40(3), 374.

Pivniouk V, et al. (2022) The OM-85 bacterial lysate inhibits SARS-CoV-2 infection of epithelial cells by downregulating SARS-CoV-2 receptor expression. *The Journal of allergy and clinical immunology*, 149(3), 923.

Shah M, et al. (2022) SARS-CoV-2 pan-variant inhibitory peptides deter S1-ACE2 interaction and neutralize delta and omicron pseudoviruses. *Computational and structural biotechnology journal*, 20, 2042.

Chen Y, et al. (2022) Immune recall improves antibody durability and breadth to SARS-CoV-2 variants. *Science immunology*, 7(78), eabp8328.

Gentles LE, et al. (2022) Dynamics of infection-elicited SARS-CoV-2 antibodies in children over time. *medRxiv : the preprint server for health sciences*.

Nathan A, et al. (2021) Structure-guided T cell vaccine design for SARS-CoV-2 variants and sarbecoviruses. *Cell*, 184(17), 4401.

Kelesidis T, et al. (2021) The ApoA-I mimetic peptide 4F attenuates in vitro replication of SARS-CoV-2, associated apoptosis, oxidative stress and inflammation in epithelial cells. *Virulence*, 12(1), 2214.

Crawford KHD, et al. (2021) Dynamics of Neutralizing Antibody Titers in the Months After Severe Acute Respiratory Syndrome Coronavirus 2 Infection. *The Journal of infectious diseases*, 223(2), 197.

Garrett ME, et al. (2021) High-resolution profiling of pathways of escape for SARS-CoV-2 spike-binding antibodies. *Cell*, 184(11), 2927.