

Resource Summary Report

Generated by [SPARC SAWG](#) on Sep 6, 2026

pET21-Streptavidin-Glutamate_Tag

RRID:Addgene_46367

Type: Plasmid

Proper Citation

RRID:Addgene_46367

Plasmid Information

URL: <http://www.addgene.org/46367>

Proper Citation: RRID:Addgene_46367

Insert Name: Streptavidin-Glutamate_Tag

Organism: E. coli

Bacterial Resistance: Ampicillin

Defining Citation: [PMID:24056174](#)

Vector Backbone Description: Backbone Marker:Novagen; Backbone Size:5400; Vector Backbone:pET21; Vector Types:Bacterial Expression; Bacterial Resistance:Ampicillin

Plasmid Name: pET21-Streptavidin-Glutamate_Tag

Record Creation Time: 20220422T222239+0000

Record Last Update: 20260905T075702+0000

Ratings and Alerts

No rating or validation information has been found for pET21-Streptavidin-Glutamate_Tag.

No alerts have been found for pET21-Streptavidin-Glutamate_Tag.

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We found 14 mentions in open access literature.

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

Halfmann PJ, et al. (2026) Immunogenicity and protective efficacy of MERS CoV, NL140422, and HKU4 spike protein nanoparticle vaccines. *Npj viruses*, 4(1), 12.

Halfmann PJ, et al. (2025) Multivalent S2 subunit vaccines provide broad protection against Clade 1 sarbecoviruses in female mice. *Nature communications*, 16(1), 462.

Biswas A, et al. (2025) Inverted H1 hemagglutinin nanoparticle vaccines protect mice against challenges with human H1N1 and bovine H5N1 influenza viruses. *NPJ vaccines*, 10(1), 225.

Halfmann PJ, et al. (2025) Potent bivalent nanobody constructs that protect against the SARS-CoV-2 XBB variant. *Npj viruses*, 3(1), 19.

Halfmann PJ, et al. (2025) Merbecovirus S2 subunit vaccines elicit cross reactive antibodies and provide partial protection against MERS coronavirus. *Npj viruses*, 3(1), 60.

Halfmann PJ, et al. (2025) Characterization and immunogenicity of nanoparticle vaccines based on Clade 2 and Clade 3 sarbecovirus S2 proteins. *NPJ vaccines*, 11(1), 13.

Halfmann PJ, et al. (2024) Broad protection against clade 1 sarbecoviruses after a single immunization with cocktail spike-protein-nanoparticle vaccine. *Nature communications*, 15(1), 1284.

Halfmann PJ, et al. (2023) Broad Protection Against Clade 1 Sarbecoviruses After a Single Immunization with Cocktail Spike-Protein-Nanoparticle Vaccine. *Research square*.

Frey SJ, et al. (2023) Nanovaccines Displaying the Influenza Virus Hemagglutinin in an Inverted Orientation Elicit an Enhanced Stalk-Directed Antibody Response. *Advanced healthcare materials*, 12(13), e2202729.

Halfmann PJ, et al. (2022) Multivalent S2-based vaccines provide broad protection against SARS-CoV-2 variants of concern and pangolin coronaviruses. *EBioMedicine*, 86, 104341.

Castro A, et al. (2021) Refocusing the Immune Response to Selected Epitopes on a Zika Virus Protein Antigen by Nanopatterning. *Advanced healthcare materials*, 10(15), e2002140.

Zhang B, et al. (2021) Probing Bioelectronic Connections Using Streptavidin Molecules with Modified Valency. *Journal of the American Chemical Society*, 143(37), 15139.

Chiba S, et al. (2021) Multivalent nanoparticle-based vaccines protect hamsters against SARS-CoV-2 after a single immunization. *Communications biology*, 4(1), 597.

Jacobsen MT, et al. (2017) Amine Landscaping to Maximize Protein-Dye Fluorescence and Ultrastable Protein-Ligand Interaction. *Cell chemical biology*, 24(8), 1040.