

Spike Glycoprotein Receptor Binding Domain (RBD) from SARS-Related Coronavirus 2, Wuhan-Hu-1 with C-Terminal Histidine Tag, Recombinant from HEK293F Cells

Catalog No. NR-52366

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Contributor:

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Manufacturer:

BEI Resources

Product Description:

A recombinant form of the spike glycoprotein receptor binding domain (RBD) from severe acute respiratory syndrome-related coronavirus 2 (SARS-CoV-2), Wuhan-Hu-1 (GenPept: [QHD43416](#)) was produced by transfection of purified plasmid in human embryonic kidney HEK293F cells and purified by nickel affinity chromatography.¹ NR-52366 lacks the signal sequence and contains 223 residues of the SARS-CoV-2 spike glycoprotein RBD and features a C-terminal hexa-histidine tag.^{2,3} The predicted protein sequence is shown in Figure 1. NR-52366 has a theoretical molecular weight of 25,900 daltons.

Note: For a detailed protocol and list of related items, see <https://labs.icahn.mssm.edu/krammerlab/covid-19/>

Material Provided:

Each vial of NR-52366 contains purified recombinant protein in phosphate buffered saline (PBS). The concentration and volume are shown on the Certificate of Analysis.

Packaging/Storage:

NR-52366 was packaged aseptically in cryovials. The product is provided on dry ice and should be stored at -60°C or colder immediately upon arrival. Freeze-thaw cycles should be avoided.

Functional Activity:

NR-52366 reacts with monoclonal anti-histidine tag in western blot analysis. NR-52366 is intended for western blot, ELISA and animal vaccination.^{2,3}

Citation:

Acknowledgment for publications should read "The following reagent was produced under HHSN272201400008C and

obtained through BEI Resources, NIAID, NIH: Spike Glycoprotein Receptor Binding Domain (RBD) from SARS-Related Coronavirus 2, Wuhan-Hu-1 with C-Terminal Histidine Tag, Recombinant from HEK293F Cells, NR-52366."

Biosafety Level: 1

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. Biosafety in Microbiological and Biomedical Laboratories. 5th ed. Washington, DC: U.S. Government Printing Office, 2009; see www.cdc.gov/biosafety/publications/bmb15/index.htm.

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References:

1. Wu, F., et al. "A New Coronavirus Associated with Human Respiratory Disease in China." *Nature* 579 (2020): 265-269. PubMed: 32015508.
2. Krammer, F., F. Amanat and S. Strohmeier, Personal Communication.
3. Amanat, F., et al. "A Serological Assay to Detect SARS-CoV-2 Seroconversion in Humans." *Nat. Med.* (2020): *in press*. PubMed: 32398876.

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Figure 1 – Predicted Protein Sequence

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1  RVQPTESIVR FPNITNLCPF GEVFNATRFA SVYAWNRRKRI SNCVADYSVL
51  YNSASFSTFK CYGVSPTKLN DLCFTNVYAD SFVIRGDEVV QIAPGQTGKI
101 ADYNYKLPDD FTGCVIAWNS NNLDSKVGGN YNYLYRLFRK SNLKPFERDI
151 STEIYQAGST PCNGVEGFNC YFPLQSYGFQ PTNGVGYQPY RVVVLSEFLL
201 HAPATVCGPK KSTNLVKKNC VNFHHHHHH
    
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RBD – **Residues 1 to 223** (represents amino acid residues 319 to 541)
 Hexa-histidine tag – Residues 224 to 229