Fusion (F) Glycoprotein from Human Respiratory Syncytial Virus (RSV), Strain A2, with C-Terminal Histidine Tag, Recombinant from Baculovirus

Catalog No. NR-58648
Sino Biological Catalog No. 11049-V08B

For research use only. Not for use in humans.

Contributor and Manufacturer:
Sino Biological, Wayne, Pennsylvania, USA

Product Description:
A recombinant form of the extracellular domain of the inactive precursor fusion (F) glycoprotein from Human Respiratory Syncytial Virus (RSV), Strain A2, (UniProt: P03420), with a C terminal poly-histidine tag, was produced by transfection in insect cells using a baculovirus expression system and was purified by nickel affinity chromatography.[1] The RSV precursor protein is cleaved into the disulfide-linked F1 and F2 subunits.[2] The predicted protein sequence is shown in Figure 1. NR-58648 comprises 518 amino acids with a predicted molecular weight of 57,769 daltons.[1]

Material Provided:
Each vial contains approximately 50 µg powder of purified recombinant protein lyophilized from 50 mM Tris, 100 mM NaCl, 10% glycerol and 7.5% trehalose at pH 8.0.

Packaging/Storage:
NR-58648 was packaged aseptically in cryovials. The product is provided at room temperature and should be stored under sterile conditions at -20°C to -80°C immediately upon arrival. It is recommended that the protein be aliquoted for optimal storage. Freeze-thaw cycles should be avoided. To reconstitute, it is recommended that 400 µl of sterile water be added to the vial to prepare a stock solution of 0.125 µg/ µl.

Functional Activity:
NR-58648 reacts with monoclonal anti-RSV fusion antibody (Sino Biological 11049-R009) in ELISA.[1]

Citation:
Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Fusion (F) Glycoprotein from Human Respiratory Syncytial Virus (RSV), Strain A2, with C Terminal Histidine Tag, Recombinant from Baculovirus, NR-58648."

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. 6th ed. Washington, DC: U.S. Government Printing Office, 2020; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

Disclaimers:
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References:
1. Lei, C., Personal Communication.
2. Krzyzaniak, M., et al. "Host Cell Entry of Respiratory Syncytial Virus Involves Macropinocytosis Followed by Proteolytic Activation of the F protein." PLoS Pathog. 9 (2013): e1003309. doi:10.1371/journal.ppat.1003309. PubMed: 23593008.

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Figure 1: Predicted Protein Sequence

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  1 FASGQNITEE FYQSTCSAVS KGYLSALRTG WYTSVITIEL SNIKENKCNG
 51 TDAKVKLIKQ ELDKYKNAVT ELQLLMQSTP PTNNRARREL PRFMNYTLNN
101 AKKTNVTLSK KRKRRFLGFL LGVGSAIASG VAVSKVLHLE GEVNKIKSAL
151 LSTNKAVVSL SNGVSVLTSK VLDLKNYIDK QLLPIVNKQS CSISNIETVI
201 EFQQKNNRLL EITREFSVNA GVTTPVSTYM LTNSELLSLI NDMPITNDQK
251 KLMSNNVQIV RQQSYSIMSI IKEEVLAYVV QLPLYGVIDT PCWKLHTSPL
301 CTTNTKEGSN ICLTRTDRGW YCDNAGSVSF FPQAETCKVQ SNRVFCDTMN
351 SLTLPSEINL CNVDIFNPKY DCKIMTSKTD VSSSVITSLG AIVSCYGKTK
401 CTASNKNRGI IKTFSNGCDY VSNKGMDTVS VGNTLYYVNK QEGKSLYVKG
451 EPIINFYDPL VFPSDEFDAS ISQVNEKINQ SLAFIRKSDE LLHNVNAGKS
501 TTNIMITTHH HHHHHHHH
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F protein – Residues 1 to 508 (UniProt: P03420)
Poly-histidine tag – Residues 509 to 518

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