Fusion (F) Glycoprotein from Human Respiratory Syncytial Virus (RSV) B, Strain 18537, with C-Terminal Histidine Tag, Recombinant from Baculovirus

Catalog No. NR-58649
Sino Biological Catalog No. 40832-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 inactive precursor fusion (F) glycoprotein from Human Respiratory Syncytial Virus (RSV), subgroup B, Strain 18537, (UniProt: P13843), 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-58649 comprises 529 amino acids with a predicted molecular weight of 59,114 daltons.[1]

Material Provided:
Each vial contains approximately 50 µg powder of purified recombinant protein lyophilized from 20 mM Tris, 300 mM NaCl, 10% glycerol, 5% trehalose, 5% mannitol and 0.01% Tween-80 at pH 7.5.

Packaging/Storage:
NR-58649 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 200 µl of sterile water be added to the vial to prepare a stock solution of 0.25 µg/ µl.

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) B, Strain 18537, with C Terminal Histidine Tag, Recombinant from Baculovirus, NR-58649."

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.

Support Provided by NIAID

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Figure 1: Predicted Protein Sequence

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  1 QNITEEFYQS TCSAVSRGYF SAALRTGWYT SVITIELSNI KETKCNGTDT
 51 KVKLIKQQEE LDKYKNAVTE LQLLMQNTPA ANNRARREAP QYMNYTTINT
101 TKNLNVSISK KRKRRFLGFL LGVGSAIASG IIAAVSKVLH LEGEVNKIKN
151 ALLSTNKAVV SLSNGVSVLT SSKKVLDLKN YINNRLLPIV NQQSCRISNI
201 ETVIEFQQQM NSRLLEITRE FSVNAGVTTP LSTYMLTNSE LLSLINDMMP
251 ITNDQKKLMS SNVQIVRQQS YSIMSIIKEE VLAAYVVQLP IYGVIDTPCW
301 KLHTSPLCTT NIKEGSNICL TRTTDDRGWY CDNAGSVSFF PQADTCKVQS
351 NRVFCDDTMN SLTLPSEVSL CNTDIFNSKY DCKIMTSKTD ISSSVITTSL
401 GAIVSCYGKT KCTASNKNRG IIKTFSNGCD YYVSNKGVDT VSVGNTLYYV
451 NKLEGKNLYV KGEPIINYYD DPLVFPSDEF DASISQVNEK INQSLAFIRR
501 SDELLLLHNV NTGKSTTNAH HHHHHHHHHH
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F protein **– Residues 1 to 519** (UniProt: P13843)
Poly-histidine tag – Residues 520 to 529

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