# Glycoprotein (G) from Human Respiratory Syncytial Virus (RSV) B, Strain 18537, with C-Terminal Histidine Tag, Recombinant from HEK293 Cells

## Catalog No. NR-59002
## Sino Biological Catalog No. 40829-V08H

**For research use only. Not for use in humans.**

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

### Product Description:
A recombinant form of the glycoprotein (G) from human respiratory syncytial virus (RSV) B, strain 18537 (UniProt: P20896) (His67-Asn292), with a C-terminal poly-histidine tag, was expressed in human embryonic kidney HEK293 cells and purified by nickel affinity chromatography.[1] The predicted protein sequence is shown in Figure 1. NR-59002 comprises 237 amino acids with a predicted molecular weight of 26,400 daltons.[1] It migrates as an approximately 54.58 kDa band in SDS-PAGE under reducing conditions.

### Material Provided:
Each vial contains approximately 50 µg of purified recombinant protein lyophilized from sterile PBS, pH 7.4, 5% trehalose, 5% mannitol and 0.01% Tween-80.

### Packaging/Storage:
NR-59002 was packaged aseptically in glass vials. The product is provided on dry ice 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.

### Reconstitution:
It is recommended that 200 µL of sterile water be added to the vial to prepare a stock solution of 0.25 mg/mL.

### Citation:
Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Glycoprotein (G) from Human Respiratory Syncytial Virus (RSV) B, Strain 18537, with C-Terminal Histidine Tag, Recombinant from HEK293 Cells, NR-59002."

### 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 (BMBL). 6th ed. Washington, DC: U.S. Government Printing Office, 2020.

### Disclaimers:
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### References:
1. Lei, C., Personal Communication.
2. Martin-Gallardo, A., et al. "Expression of the G Glycoprotein Gene of Human Respiratory Syncytial Virus in *Salmonella typhimurium*." J. Gen. Virol. 74 (1993): 453-458. PubMed: 8445368.
3. Melero, J. A., et al. "Antigenic Structure, Evolution and Immunobiology of Human Respiratory Syncytial Virus Attachment (G) Protein." J. Gen. Virol. 78 (1997): 2411-2418. PubMed: 9349459.
4. Feldman, S. A., et al. "Identification of a Linear Heparin Binding Domain for Human Respiratory Syncytial Virus Attachment Glycoprotein G." J. Virol. 73 (1999): 6610-6617. PubMed: 10400758.
5. García-Beato, R and J. A. Melero. "The C-Terminal Third of Human Respiratory Syncytial Virus Attachment (G) Protein is Partially Resistant to Protease Digestion and is Glycosylated in a Cell-Type-Specific Manner." J. Gen. Virol. 81 (2000): 919-927. PubMed: 10725417.
6. Zlateva, K. T., et al. "Molecular Evolution and Circulation Patterns of Human Respiratory Syncytial Virus Subgroup A: Positively Selected Sites in the Attachment G Glycoprotein." J. Virol. 78 (2004): 4675-4683. PubMed: 15078950.

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7. Trento, A., et al. "Natural History of Human Respiratory Syncytial Virus Inferred from Phylogenetic Analysis of the Attachment (G) Glycoprotein with a 60-Nucleotide Duplication." J. Virol. 80 (2006): 975-984. PubMed: 1637899.



Support Provided by NIAID

**Figure 1: Predicted Protein Sequence**

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1     HKVTLTTVTV QTIKNHTEKN ISTYLTQVPP ERVNSSKQPT TTSPIHTNSA
51    TISPNTKSET HHTTAQTKGR ITTSTQTNKP STKSRSKNPP KKPKDDYHFE
101   VFNFVPCSIC GNNQLCKSIC KTIPSNKPKK KPTIKPTNKP TTKTTNKRDP
151   KTPAKMPKKE IITNPAKKPT LKTTERDTSI SQSTVLDTIT PKYTIQQQSL
201   HSTTSENTPS STQIPTASEP STLNPNAHHH HHHHHHH
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G protein **– Residues 1 to 226** [represents amino acid residues 67 to 292 (UniProt: P20896)]
Poly-histidine tag – Residues 228 to 237

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