

SUPPORTING INFECTIOUS DISEASE RESEARCH

Product Information Sheet for NR-59002

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. The predicted protein sequence is shown in Figure 1. NR-59002 comprises 237 amino acids with a predicted molecular weight of 26,400 daltons. 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 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.

Reconstitution:

It is recommended that 200 μ L of sterile water be added to the vial to prepare a stock solution of 0.25 μ g/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). Current Edition. Washington, DC: U.S. Government Printing Office.

Disclaimers:

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References:

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- 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.
- Melero, J. A., et al. "Antigenic Structure, Evolution and Immunobiology of Human Respiratory Syncytial Virus Attachment (G) Protein." <u>J. Gen. Virol.</u> 78 (1997): 2411-2418. PubMed: 9349459.
- Feldman, S. A., et al. "Identification of a Linear Heparin Binding Domain for Human Respiratory Syncytial Virus Attachment Glycoprotein G." <u>J. Virol</u>. 73 (1999): 6610-6617. PubMed: 10400758.
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- 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." <u>J. Virol.</u> 78 (2004): 4675-4683. PubMed: 15078950.

BEI Resources www.beiresources.org E-mail: contact@beiresources.org

Tel: 800-359-7370 Fax: 703-365-2898



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 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.

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Figure 1: Predicted Protein Sequence

1	HKVTLTTVTV	QTIKNHTEKN	ISTYLTQVPP	ERVNSSKQPT	TTSPIHTNSA
51	TISPNTKSET	HHTTAQTKGR	ITTSTQTNKP	${\tt STKSRSKNPP}$	KKPKDDYHFE
101	VFNFVPCSIC	GNNQLCKSIC	KTIPSNKPKK	KPTIKPTNKP	TTKTTNKRDP
151	KTPAKMPKKE	IITNPAKKPT	LKTTERDTSI	SQSTVLDTIT	PKYTIQQQSL
201	HSTTSENTPS	STOIPTASEP	STLNPNAHHH	НННННН	

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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Tel: 800-359-7370

Fax: 703-365-2898