Data Sheet (Cat.No.TMPY-01201)

Human cytomegalovirus (HCMV) Glycoprotein B/gB Protein (His)

General Information

Synonyms: Human cytωlovirus (HCMV) Glycoprotein B/gB

Protein Construction: A DNA sequence encoding the extracellular domain (Met 1-Lys 700) linked with the cytoplasmic domain (Arg 777-Val 907) of human CMV gB (AAA45920.1, with furin cleavage site mutated from 'RTKR' to 'TTQT') was fused with a polyhistidine tag at the C-terminus. Predicted N terminal: Val 23

Species: CMV

Expression Host: HEK293 Cells

Accession: P13201

Molecular Weight: 93.2 kDa (predicted); 130-140 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity: Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.

Purity: > 70 % as determined by SDS-PAGE

Endotoxin: < 1.0 EU/μg of the protein as determined by the LAL method.

Formulation: Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Shipping:

In general, Lyophilized powders are shipping with blue ice.

Protein Background

Cytomegalovirus (CMV) (human herpesvirus 5) glycoprotein B, also referred as CMV gB or gB, which belongs to the herpesviridae glycoprotein B family. It is a 97-amino acid glycoprotein encoded by the ORF of UL55. Cytomegalovirus Glycoprotein B protein is the most abundant component of the envelope, a target of neutralizing

antibodies with at least two defined neutralizing epitopes and an essential replication component. Cytomegalovirus Glycoprotein B protein plays important roles in HCMV entry, cell-cell spread of internal virions, and fusion of infected cells. In addition, Cytomegalovirus Glycoprotein B protein is one envelope protein capable of heparin binding. It forms a physical association with host cell annexin II independent of the presence of calcium.

Reference

Lopper M,et al.(2002). Disulfide bond configuration of human cytomegalovirus glycoprotein B. J Virol. 76(12): 6073-82.

Isaacson MK,et al.(2009) Human cytomegalovirus glycoprotein B is required for virus entry and cell-to-cell spread but not for virion attachment, assembly, or egress. J Virol. 83(8): 3891-903.