HRSV (B) Pre-fusion glycoprotein F0, His Tag (MALS verified)

Catalog # RSF-V52H8

Synonym

Prefusion glycoprotein F0/pre-F protein (RSV)

Source

HRSV (B) Pre-fusion glycoprotein F0, His Tag (RSF-V52H8) is expressed from human 293 cells (HEK293).

Molecular Characterization

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 56.3 kDa. The protein migrates as 60-65 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 μm filtered solution in 0.1 M Sodium citrate, 150 mM NaCl, pH5.5 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

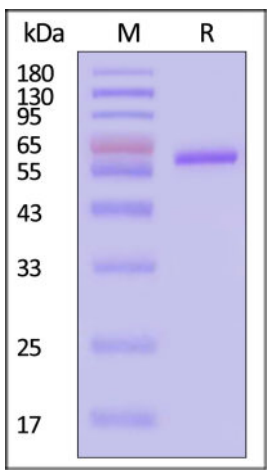
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

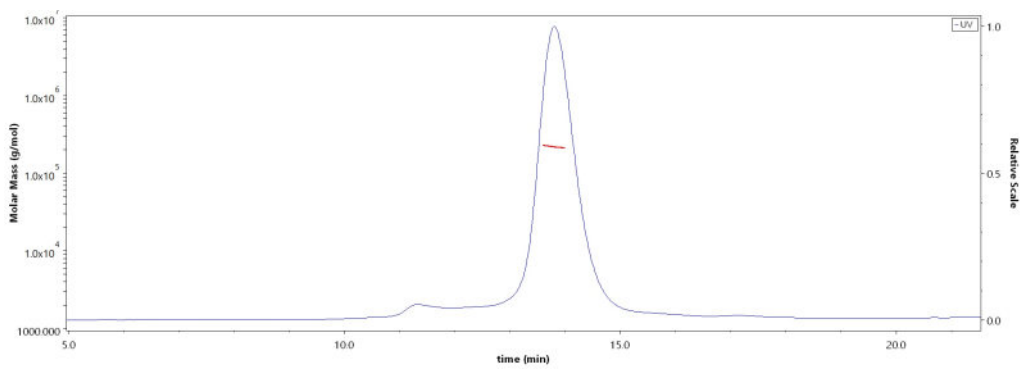
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



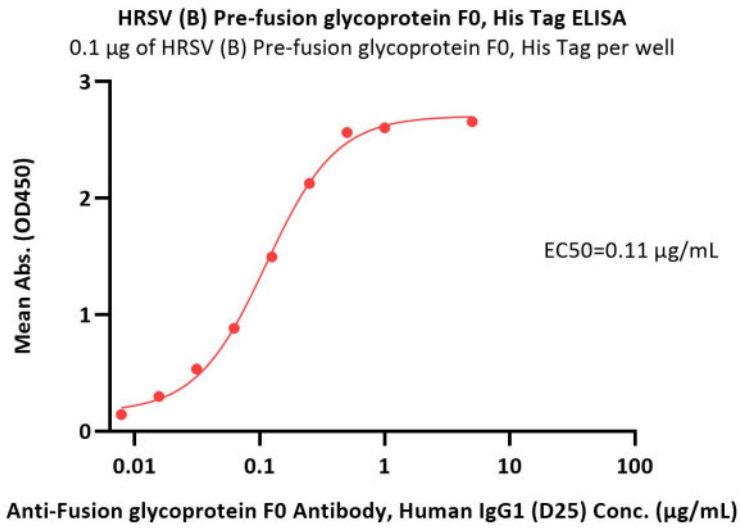
HRSV (B) Pre-fusion glycoprotein F0, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With Star Ribbon Pre-stained Protein Marker).

SEC-MALS

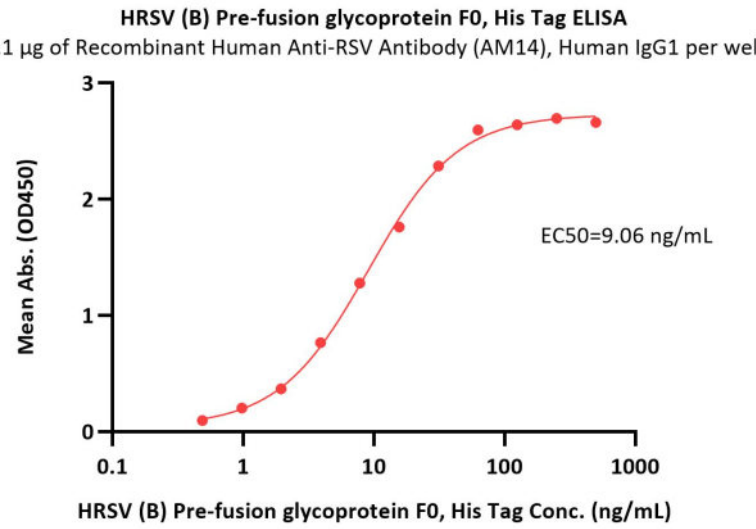


The purity of HRSV (B) Pre-fusion glycoprotein F0, His Tag (Cat. No. RSF-V52H8) is more than 90% and the molecular weight of this protein is around 190-240 kDa verified by SEC-MALS.
Report

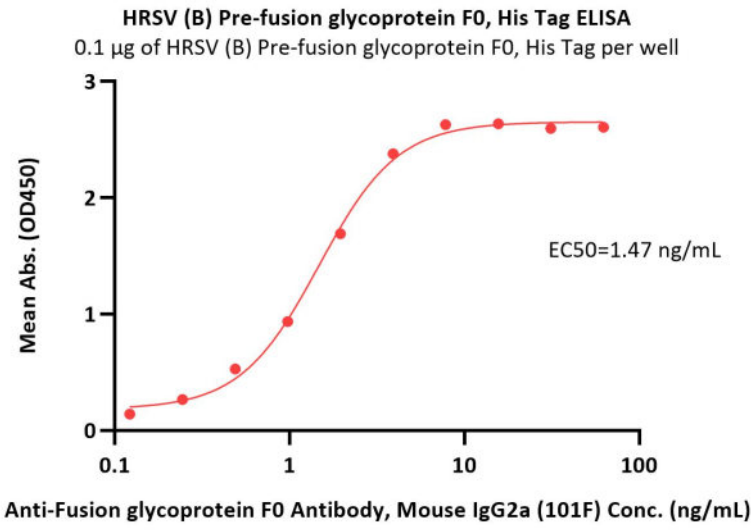
Bioactivity-ELISA



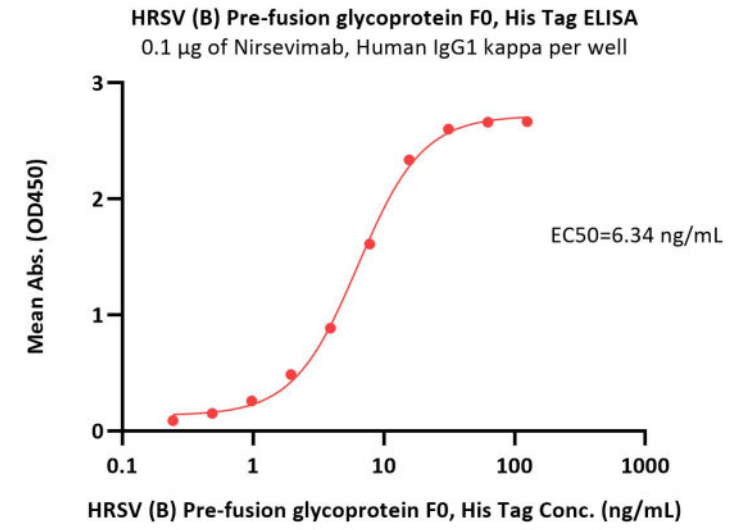
Immobilized HRSV (B) Pre-fusion glycoprotein F0, His Tag (Cat. No. RSF-V52H8) at 1 μg/mL (100 μL/well) can bind Anti-Fusion glycoprotein F0 Antibody, Human IgG1 (D25) with a linear range of 0.008-0.25 μg/mL (QC tested).



Immobilized Recombinant Human Anti-RSV Antibody (AM14), Human IgG1 at 1 μg/mL (100 μL/well) can bind HRSV (B) Pre-fusion glycoprotein F0, His Tag (Cat. No. RSF-V52H8) with a linear range of 0.5-31 ng/mL (QC tested).

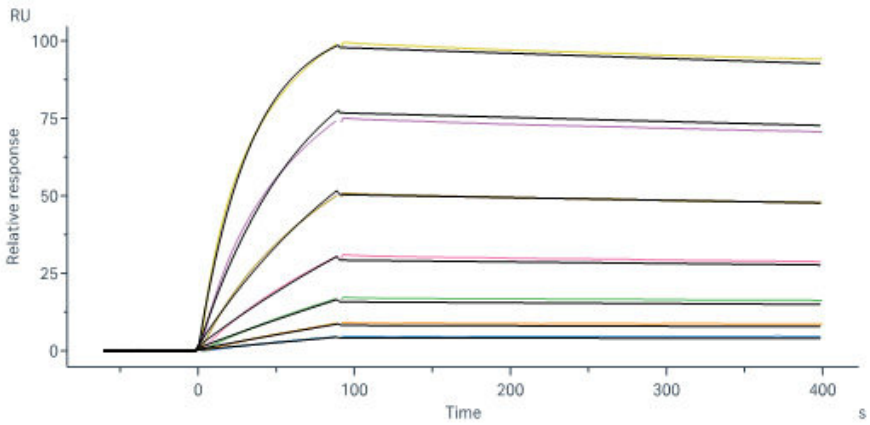


Immobilized HRSV (B) Pre-fusion glycoprotein F0, His Tag (Cat. No. RSF-V52H8) at 1 μg/mL (100 μL/well) can bind Anti-Fusion glycoprotein F0 Antibody, Mouse IgG2a (101F) with a linear range of 0.1-4 ng/mL (Routinely tested).

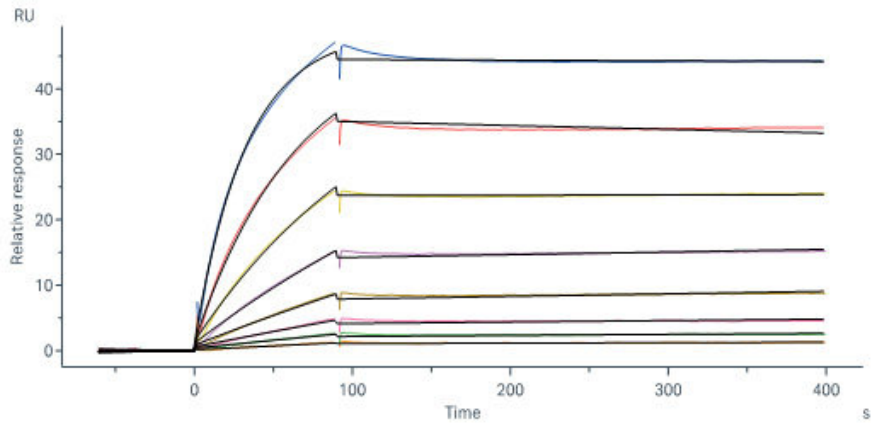


Immobilized Nirsevimab, Human IgG1 kappa at 1 μg/mL (100 μL/well) can bind HRSV (B) Pre-fusion glycoprotein F0, His Tag (Cat. No. RSF-V52H8) with a linear range of 0.2-16 ng/mL (Routinely tested).

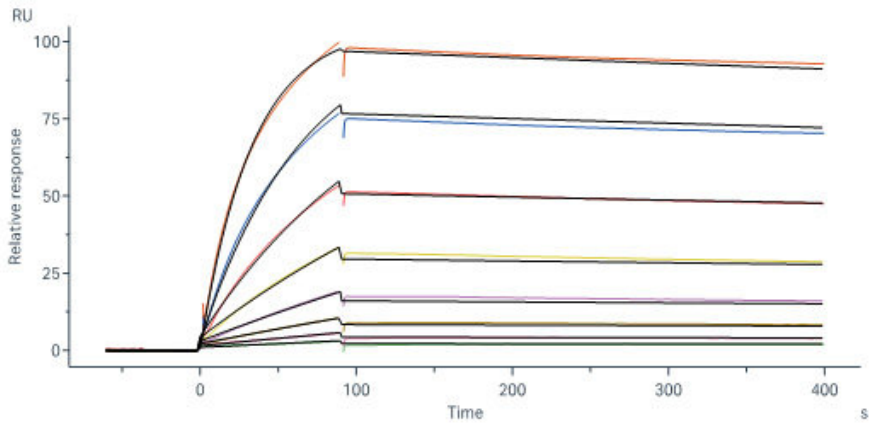
Bioactivity-SPR



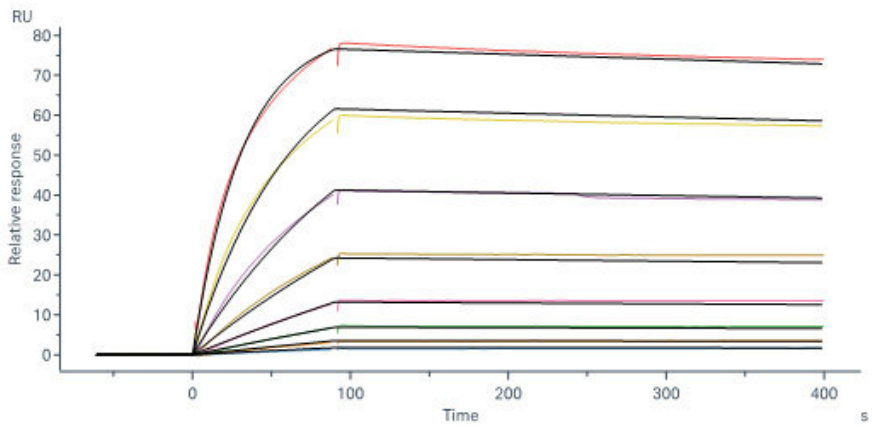
Anti-Fusion glycoprotein F0 Antibody, Mouse IgG2a (101F) captured on Protein G-Series S sensor chip can bind HRSV (B) Pre-fusion glycoprotein F0, His Tag (Cat. No. RSF-V52H8) with an affinity constant of 0.766 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).



Monoclonal Anti-HRSV-A F/Fusion glycoprotein F0 Antibody, Human IgG1 (D25) captured on Protein G-Series S sensor chip can bind HRSV (B) Pre-fusion glycoprotein F0, His Tag (Cat. No. RSF-V52H8) with an affinity

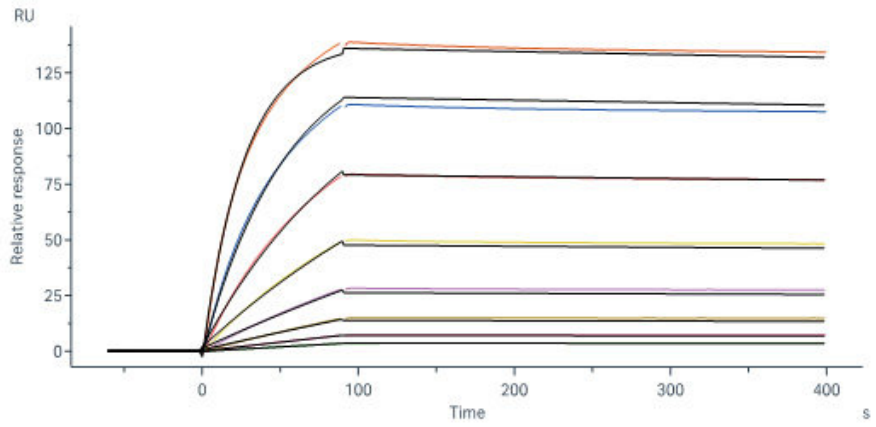


Monoclonal Anti-RSV-F0 broadly Antibody, Mouse IgG1 (4G2) captured on Protein G-Series S sensor chip can bind HRSV (B) Pre-fusion glycoprotein F0, His Tag (Cat. No. RSF-V52H8) with an affinity constant of 6.69 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).



Monoclonal Anti-RSV-F0 broadly Antibody, Mouse IgG1 (3B4) captured on CM5 chip via anti-mouse antibodies surface can bind HRSV (B) Pre-fusion glycoprotein F0, His Tag (Cat. No. RSF-V52H8) with an affinity constant of 2.58 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

constant of 0.792 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).



Monoclonal Anti-RSV-Pre-F0 specific Antibody, Human IgG1 (12C6) (Cat. No. RS0-S286) captured on Protein G-Series S sensor chip can bind HRSV (B) Pre-fusion glycoprotein F0, His Tag (Cat. No. RSF-V52H8) with an affinity constant of 2.71 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

Background

Human respiratory syncytial virus (HRSV) is the most common etiological agent of acute lower respiratory tract disease in infants and can cause repeated infections throughout life. The RSV fusion glycoprotein (RSV F) is the principal target of RSV neutralizing antibodies in human sera. The RSV F is a type I viral fusion protein synthesized as inactive, single-chain polypeptides that assemble into trimers. RSV F fuses the viral and host cell membranes by irreversible protein refolding from the labile prefusion conformation to the stable post-fusion conformation. Both states exhibit epitopes targeted by neutralizing antibodies, and post-fusion RSV F is being developed as a vaccine candidate.

Clinical and Translational Updates