

# Human respiratory syncytial virus (RSV) Fusion glycoprotein / RSV-F Neutralizing Antibody



Catalog Number: 11049-R338

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General Information	
<b>Immunogen:</b>	Recombinant Human respiratory syncytial virus (RSV) Fusion glycoprotein / RSV-F protein (Catalog#11049-V08B)
<b>Clone ID:</b>	R338
<b>Ig Type:</b>	Rabbit IgG
<b>Applications:</b>	ELISA(Det), Microneutralization (MN) (Antibody's applications have not been validated with corresponding viruses. Optimal concentrations/dilutions should be determined by the end user.)
<b>Specificity:</b>	Human respiratory syncytial virus (RSV) Fusion glycoprotein / RSV-F
<b>Endotoxin:</b>	Please contact us for more information.
<b>Formulation:</b>	0.2 µm filtered solution in PBS
<b>Storage:</b>	< -20°C

## Preparation

This antibody was obtained from a rabbit immunized with purified, recombinant Human respiratory syncytial virus (RSV) Fusion glycoprotein / RSV-F (Catalog#11049-V08B; AAB59858.1; Met1-Thr529) and was produced using recombinant antibody technology.

## Specificity

Human respiratory syncytial virus (RSV) Fusion glycoprotein / RSV-F  
**Has cross-reactivity** with recombinant F protein of A type of long strain (40039-V08B), A2 strain (11049-V08B), RSS2 strain (40037-V08B) and B type of B1 strain in ELISA assay

## Storage

This antibody can be stored at 2°C-8°C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20°C to -80°C. **Preservative-Free.**

Sodium azide is recommended to avoid contamination (final concentration 0.05%-0.1%). It is toxic to cells and should be disposed of properly. **Avoid repeated freeze-thaw cycles.**

## 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. It is classified within the genus pneumovirus of the family paramyxoviridae. Like other members of the family, HRSV has two major surface glycoproteins (G and F) that play important roles in the initial stages of the infectious cycle. The G protein mediates attachment of the virus to cell surface receptors, while the F protein promotes fusion of the viral and cellular membranes, allowing entry of the virus ribonucleoprotein into the cell cytoplasm. The fusion (F) protein of RSV is synthesized as a nonfusogenic precursor protein (F0), which during its migration to the cell surface is activated by cleavage into the disulfide-linked F1 and F2 subunits. This fusion is pH independent and occurs directly at the outer cell membrane, and the F2 subunit was identified as the major determinant of RSV host cell specificity. The trimer of F1-F2 interacts with glycoprotein G at the virion surface. Upon binding of G to heparan sulfate, the hydrophobic fusion peptide is unmasked and induces the fusion between host cell and virion membranes. Notably, RSV fusion protein is unique in that it is able to interact directly with heparan sulfate and therefore is sufficient for virus infection. Furthermore, the fusion protein is also able to trigger p53-dependent apoptosis.

## Reference

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## Applications

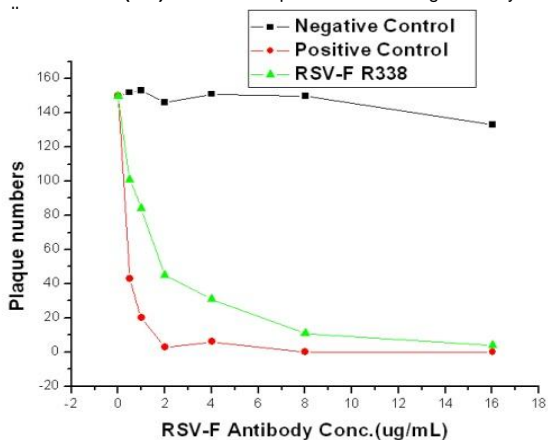
**ELISA(Cap):** 0.5-4 µg/ml

This antibody will detect Human respiratory syncytial virus (RSV) (A2) Fusion glycoprotein / RSV-F in ELISA pair set SEK11049. In a sandwich ELISA, it can be used as capture antibody when paired with 11049-R302.

**The Microneutralization (MN) Data is provided by the customer.**

**Sino Biological, Inc has not validated this application.**

**Microneutralization (MN)** - The RSV F protein Neutralizing Antibody can effectively neutralize Human RSV A type A2 strain virus from infecting the



The neutralization activity of RSV F protein antibody is Measured by Microneutralization test in vitro. The cytopathic effect of VERO cells induced by 100 pfu of RSV A-A2 strain is neutralized by increasing concentrations of anti RSV Monoclonal Antibody (Catalog: 11049-R338). The neutralizing titer (IC50) of antibody is 0.6-2.3 µg/mL.