

PRODUCT INFORMATION



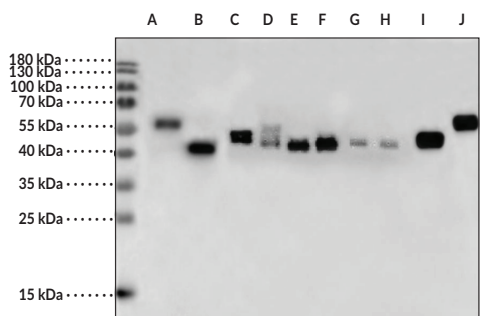
RSV F Protein Neutralizing Rabbit Monoclonal Antibody (Clone R338)

Item No. 43643

Overview and Properties

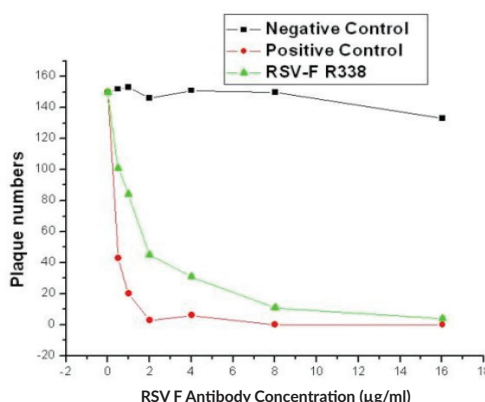
Contents:	This vial contains 200 or 500 µg of protein A-affinity purified monoclonal antibody
Synonyms:	Respiratory Syncytial Virus F Protein, Respiratory Syncytial Virus Fusion Protein, RSV Fusion Protein
Immunogen:	Recombinant human-targeted RSV F protein
Cross Reactivity:	(+) RSVB pre-F, RSVB post-F, RSV pre-F (A2), RSV post-F, RSV-F (A2), RSV-F (strain RSS-2), RSV-F (aa 1-525), RSV-F (aa 1-526), RSV-F (A, strain long), RSV-F (B, strain 18537)
Species Reactivity:	RSV
Form:	Liquid
Storage:	-80°C (as supplied)
Stability:	≥1 year
Storage Buffer:	0.2 µm filtered solution in histidine and arginine buffer with 120 mM sodium chloride, pH 6.0, and 0.02% polysorbate 80
Clone:	R338
Host:	Rabbit
Isotype:	IgG
Applications:	ELISA and Western blot (WB); the recommended concentration is 0.5-4 µg/ml (ELISA Cap), 1 mg/ml (LFA Cap), 1-2 mg/ml (LFA Det) for ELISA, and a dilution of 1:1,000-1:5,000 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



Lane A: RSV pre-F (A2) Protein (10 ng)
Lane B: RSV post-F Protein (10 ng)
Lane C: RSV F (A2) Protein (10 ng)
Lane D: RSV F (Strain RSS-2) Protein (10 ng)
Lane E: RSV F (A2) Protein (10 ng)
Lane F: RSV F (aa 1-525) Protein (10 ng)
Lane G: RSV F (aa 1-526) Protein (10 ng)
Lane H: RSV F (B, strain 18537) Protein (10 ng)
Lane I: RSVB post-F Protein (10 ng)
Lane J: RSV pre-F Protein (10 ng)

WB of RSV F Protein Neutralizing Rabbit Monoclonal Antibody (Clone R338) at a 1:1,000 dilution.



The neutralization activity of RSV F protein antibody was measured by a 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 RSV F Protein Neutralizing Rabbit Monoclonal Antibody (Clone R338). The neutralizing titer (IC₅₀) of antibody is 0.6-2.3 µg/ml.

Description

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Respiratory syncytial virus (RSV) fusion (F) protein is a surface glycoprotein encoded by the *F* gene in RSV RNA.¹ It is synthesized as an inactive precursor protein, F_0 , that undergoes proteolytic cleavage to release the F_1 and F_2 subunits, which are joined together by two disulfide bonds.² Mature RSV F protein is composed of an N-terminal fusion peptide (FP), two heptad repeats (HRs), a transmembrane domain, and a cytoplasmic tail and assembles into homotrimers on the virus surface.¹ Upon insertion of the FP in the target cell membrane, the HRs form a six-helical bundle (6-HB) that enables RSV to fuse with the target cell. RSV F protein is highly conserved between RSV subtypes A and B with approximately 90% amino acid identities.³ RSV is the most common causative agent of pediatric lower respiratory tract infections.⁴ Cayman's RSV F Protein Neutralizing Rabbit Monoclonal Antibody (Clone R338) can be used for ELISA and Western blot (WB) applications.

References

1. Graham, B.S. and Anderson, L.J. Challenges and opportunities for respiratory syncytial virus vaccines. *Curr. Top. Microbiol. Immunol.* **372**, 391-404 (2013).
2. Day, N.D., Branigan, P.J., Liu, C., *et al.* Contribution of cysteine residues in the extracellular domain of the F protein of human respiratory syncytial virus to its function. *Viol. J.* **3**, 34 (2006).
3. Choi, S.-H., Park, K.S., and Kim, Y.-J. Analysis of respiratory syncytial virus fusion protein from clinical isolates of Korean children in palivizumab era, 2009-2015. *J. Infect. Chemother.* **25(7)**, 514-519 (2019).
4. Nair, H., Nokes, D.J., Gessner, B.D., *et al.* Global burden of acute lower respiratory infections due to respiratory syncytial virus in young children: A systematic review and meta-analysis. *Lancet* **375(9725)**, 1545-1455 (2010).

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