

## 12-8490: Anti-Respiratory Syncytial Virus (Clone: RSV-3M3) Biotin

<b>Clonality :</b>	Monoclonal
<b>Clone Name :</b>	RSV-3M3
<b>Application :</b>	ELISA
<b>Alternative Name :</b>	RSV, Orthopneumovirus
<b>Isotype :</b>	Human IgG1Lambda

### Description

Specificity: RSV-3M3 activity is directed against antigenic site IV of the RSV fusion (F) protein and binds to pre- and post-fusion F proteins of RSV A strain A2 and RSV B strain 18537. Clone RSV-3M3 is potent at neutralizing RSV A2, RSV Long viruses (subgroup A), RSV 18537 B, and RSV WV/401R viruses (subgroup B). Competition-binding assay shows that RSV-3M3 targets antigenic site IV. Mutagenesis experiments have revealed RSV-3M3 requires arginine residue R429 for binding and neutralization. EM reconstruction shows that RSV-3M3 binds close to a 0° tilt. RSV-3M3 does not neutralize hMPV.

Antigen Distribution: F protein is a surface glycoprotein

Background: Respiratory syncytial virus (RSV) is a common respiratory virus that infects the majority of children by two years old<sup>1, 2</sup>. While usually mild, RSV can be serious in infants and older adults and is the leading cause of bronchiolitis and pneumonia in children less than one year of age in the United States<sup>1</sup>. A related pneumovirus, human metapneumovirus (hMPV), also significantly contributes to hospitalizations resulting from lower respiratory tract infection<sup>2</sup>. Antibodies have been described that bind and neutralize both RSV and hMPV fusion (F) proteins. RSV F protein is a type I integral membrane protein that is synthesized as a 574 amino acid inactive precursor, assembled into a trimer, post-translationally modified, then cleaved to produce F1, F2, and intervening peptide pep273. Functional F protein has both pre- and post-fusion conformations. RSV F protein is highly conserved among RSV isolates from both A and B subgroups<sup>3</sup> and is the primary target for antiviral drug development<sup>3</sup> with several antigenic regions capable of introducing neutralizing antibodies<sup>2</sup>. RSV and hMPV F protein share ~36% sequence similarity.

### Product Info

<b>Amount :</b>	100 µg / 250 µg Purity :>=95% monomer by analytical SEC
<b>Purification :</b>	Preparation : Recombinant antibodies are manufactured in an animal free facility using only in vitro protein free cell culture techniques and are purified by a multi-step process including the use of protein A or G to assure extremely low levels of endotoxins, leachable protein A or aggregates. Concentration:0.5 mg/ml
<b>Content :</b>	Formulation: This recombinant monoclonal antibody is aseptically packaged and formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.2 - 7.4 with no carrier protein, potassium, calcium or preservatives added. Due to inherent biochemical properties of antibodies, certain products may be prone to precipitation over time. Precipitation may be removed by aseptic centrifugation and/or filtration.
<b>Storage condition :</b>	Functional grade preclinical antibodies may be stored sterile as received at 2-8°C for up to one year. For longer term storage, aseptically aliquot in working volumes without diluting and store at -80°C. Avoid Repeated Freeze Thaw Cycles.

### Application Note

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