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12-8437: Anti-Respiratory Syncytial Virus (Clone: RSV-12I1) Purified No Carrier Protein

Clonality :	Monoclonal
Clone Name :	RSV-12I1
Application :	ELISA
Alternative Name :	RSV, Orthopneumovirus
Isotype :	Human IgG1Lambda

Description

Specificity: RSV-12I1 activity is directed against antigenic site II of the RSV fusion (F) protein. Clone RSV-12I1 did bind to both pre- and post-fusion F protein in an ELISA binding assay, favoring the post-fusion conformation. Competition-binding studies showed that RSV-12I1 targets antigenic site II, which is the target of palivizumab, an antiviral monoclonal antibody licensed as a prophylactic treatment. RSV-12I1 readily competed with RSV-14N4 on post-fusion F, but the competition was less pronounced on pre-fusion F. RSV-12I1 also competed with palivizumab on post-fusion F in a palivizumab competition assay. Saturation alanine scanning mutagenesis identified residues Leu467 and Lys470 as critical for RSV-12I1 binding. Binding was not detected to scaffolded epitopes containing site II.
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 old1, 2. 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 States1. Antibodies have been described that bind and neutralize RSV fusion (F) protein2-4. 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 subgroups3 and is the primary target for antiviral drug development3 with several antigenic regions capable of introducing neutralizing antibodies2.

Product Info

Amount :	1.0 mg / 250 µg
Purification :	Purity :>=90% monomer by analytical SEC and SDS-Page 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.
Content :	Concentration:>=1.0 mg/ml 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.
Storage condition :	This antibody may be stored sterile as received at 2-8°C for up to one month. For longer term storage, aseptically aliquot in working volumes without diluting and store at <= -70°C.?Avoid Repeated Freeze Thaw Cycles.

Application Note

ELISA NOTE: RSV-12I1 failed to show neutralization activity against RSV strain A2 in a plaque reduction neutralization assay.