Anti-RSV F protein [MEDI-493 (Palivizumab, hu129)] Bulk Size Ab02241-3.3-BT

This antibody was created using our proprietary Fc Silent™ engineered Fc domain containing key point mutations that abrogate binding to Fc gamma receptors.

This chimeric mouse antibody was made using the variable domain sequences of the original Human IgG1 format, for improved compatibility with existing reagents, assays and techniques.

Isotype and Format: Mouse IgG2b, Fc Silent™, Kappa
Clone Number: MEDI-493 (Palivizumab, hu129)
Alternative Name(s) of Target: F2; Fusion glycoprotein F0; Protein F; F gycoprotein; Human respiratory syncytial virus; humanized mAb 129
UniProt Accession Number of Target Protein: P03420
Published Application(s): NTRL, therapeutic, WB, ELISA
Published Species Reactivity: RSV
Immunogen: The original antibody was generated by immunizing female BALB/c mice by primary intranasal infection with A2 strain of RSV.
Specificity: This antibody recognizes the site A of the RSV F glycoprotein. This antibody binds the 'NSELLSLINDMPITNDQKKLMSNN' epitope (PMID: 20098425).
Application Notes: This broadly neutralizing antibody is recommended to be used as a prophylactic agent for infants with risk for RSV infections. The binding and functional properties of this antibody were studied using ELISA and in vitro neutralization assays. The affinity of MEDI-493 was found to be 1.4 nM, equal to or slightly better than an isotype matched chimeric derivative of mAb 1129 (Johnson et al., 1997). Pretreatment of cotton rats with MEDI-493 resulted in 99% reduction of lung RSV titers at a dose of 2.5 mg/kg, corresponding to a serum concentration of 25-30 microg/mL (PMID: 9359721). MEDI-493 was safe and well-tolerated in this high risk pediatric population (PMID: 9493805). It was reported that monthly intramuscular doses of 15 mg/kg maintained mean trough serum concentrations that were above 40 microg/ml (the value associated with 99% reduction of pulmonary RSV in the cotton rat model) (PMID: 9779762). Phase III clinical trial showed that MEDI493 significantly reduced hospitalizations due to RSV infection. A comparative study indicated that MEDI-493 was consistently 4- to 5-fold more potent than RSHZ19 in antigen binding, RSV neutralization, and fusion inhibition assays (PMID: 10353858). MEDI-493 was used to study the resistant escape mutants and the reactivity of their F protein was tested using

western blotting (PMID: 14972528). It is reported that ultraviolet (UV) light irradiation of MEDI-493 causes the loss of binding and biological activity which is attributed to a single tryptophan residue (PMID: 17319649). This antibody is commercially available as SYNAGIS®.
Antibody First Published in: Johnson et al. Development of a humanized monoclonal antibody (MEDI-493) with potent in vitro and in vivo activity against respiratory syncytial virus. J Infect Dis. (1997); 176(5):1215-24. PMID:9359721
Note on publication: Describes the generation of humanized version of mAb 1129 against a conserved neutralizing epitope on the F glycoprotein of RSV.

Product Form

Size: 1 mg Purified antibody in bulk size.
Purification: Protein A affinity purified
Supplied In: PBS only.
Storage Recommendation: Store at 4^{0}C for up to 3 months. Note, this antibody is provided without added preservatives, it is therefore recommed this antibody be handled under sterile conditions. For longer storage, aliquot and store at -20^{0}C.
Concentration: 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.