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(54) Title: HIGH AFFINITY HUMAN MONOCLONAL ANTIBODIES SPECIFIC FOR RSV F-PROTEIN

(57) Abstract

A highly efficient method for generating human antibodies in particular which are specific to be RSV fusion protein which combines *in vitro* priming of human spleen cells and antigen boosting in SCID mice is taught. This method provides for very high human antibody titers which are predominantly of the IgG isotype which contain antibodies of high specificity and affinity to desired antigens. This method is well suited for generating human monoclonal antibodies for therapeutic and diagnostic applications as well as for rescue for human cells for generation of combinational human antibody gene libraries. Two human monoclonal antibodies, RF-1 and RF-2 which each possess an affinity for RSV-F protein $\leq 2 \times 10^{-9}$ Molar are taught as well as their corresponding amino acid and DNA sequences. These antibodies are to be used therapeutically and prophylactically for treating or preventing RSV infection, as well as for diagnosis of RSV in analytes.