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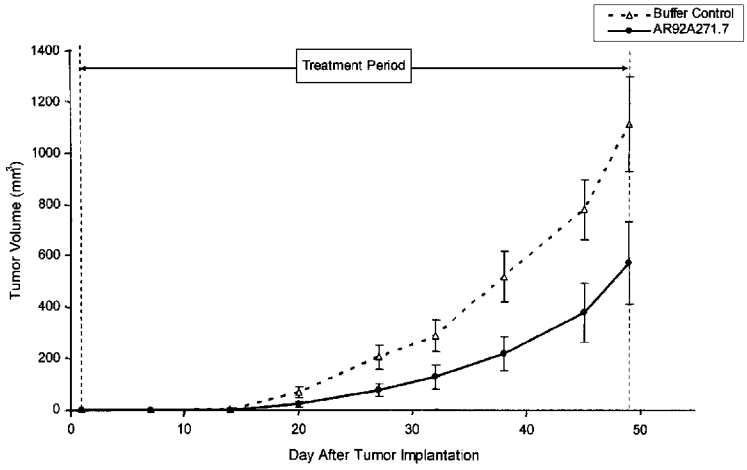
(54) Title: AN ANTI-CANCER CYTOTOXIC MONOCLONAL ANTIBODY



(57) Abstract: Antibody mediated killing of cancer cells is an effective approach to treat cancer. Antibodies generated in mice, upon immunization with lung adenocarcinoma cells, are screened for cytotoxicity against a variety of cancer cell lines as the endpomt. An anti-cancer cytotoxic monoclonal antibody is isolated, produced by the hybπdoma AR92A271.7 deposited with IDAC as Accession Number 290507-04, which is cytotoxic to a lung cancer cell line and reduces tumor burden in an animal model of human lung cancer. The monoclonal antibody also binds to several cancer cell lines. There is low, but detectable, binding of the monoclonal antibody to a non-cancer cell line, however, cytotoxicity is not induced in this non-cancer cell line. This monoclonal antibody can be used to aid staging and diagnosis of cancer, and in the treatment of primary tumors and tumor metastases. This cytotoxic monoclonal antibody can also be used to deliver toxins, enzymes, radioactive compounds and hematogenous cells to cancer cells, to further aid reduction of tumor burden.

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