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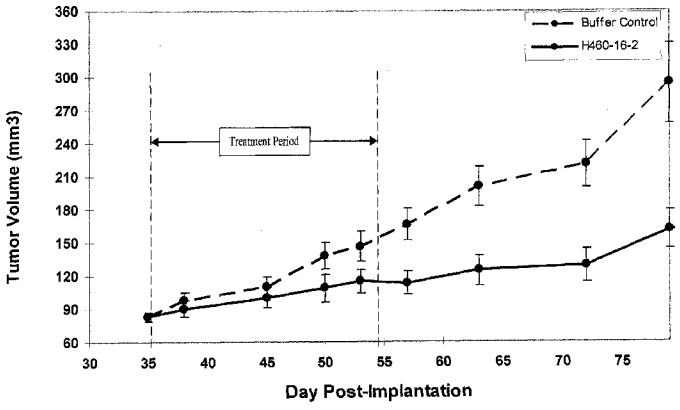
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[Continued on next page]

(54) Title: CHIMERIC AND HUMANIZED ANTI-CD44 ANTIBODIES THAT MEDIATE CANCER CELL CYTOTOXICITY

FIGURE 1



(57) Abstract: CD44, a single chain hyaluronic acid (HA) binding glycoprotein, is expressed in a variety of normal tissues, all hematopoietic cells and several cancer tissues. A monoclonal antibody against CD44 from the hybridoma H460-16-2, deposited with the ATCC as PTA-4621, was previously shown to be a cancerous disease modifying antibody (CDMAB), preventing tumour growth and reducing tumour burden in cancer models including prostate and breast cancer by cytotoxicity. The variable regions of this monoclonal antibody were also isolated and sequenced to generate a chimeric antibody that had improved anti¬ cancer activity over the monoclonal antibody. Now, humanized antibodies are generated that have similar CD44 binding activity as the parent PTA-4621 monoclonal antibody. The monoclonal, chimeric and humanized antibodies can be conjugated to toxins, enzymes, radioactive compounds, cytokines, interferons, target or reporter moieties and hematogenous cells to treat cancer. These antibodies are also used in binding assays to determine CD44 expression on cells.

WO 2008/144890 A1

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