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(54) Title: ANTIGEN BINDING FRAGMENTS THAT SPECIFICALLY DETECT CANCER CELLS, NUCLEOTIDES ENCODING THE FRAGMENTS, AND USE THEREOF FOR THE PROPHYLAXIS AND DETECTION OF CANCERS

(57) Abstract

The present invention relates to monoclonal antibody H11 and antigen binding fragments that specifically bind to the antigen recognized by H11, the C-antigen. The C-antigen is found specifically on neoplastic cells and not on normal cells. Also disclosed are polynucleotide and polypeptide derivatives based on H11, including single chain V region molecules and fusion proteins, and various pharmaceutical compositions. When administered to an individual, the H11 antibody is effective in diagnosing, localizing, and/or treating neoplasias. The invention further provides methods for treating a neoplastic disease, particularly melanoma, neuroblastoma, glioma, soft tissue sarcoma, and small cell lung carcinoma. Patients who are in remission as a result of traditional modes of cancer therapy may be treated with a composition of this invention in hopes of reducing the risk of recurrence. Patients may also be treated concurrently with the antibodies and traditional anti-neoplastic agents.