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(54) Title: CDCA1 EPITOPE PEPTIDES AND VACCINES CONTAINING THE SAME

(57) Abstract: Peptide vaccines against cancer are described herein. In particular, the present invention describes epitope peptides derived from CDCA1 that elicit CTLs. The present invention also provides established CTLs that specifically recognize HLA-A24 positive target cells pulsed with the peptides. Antigen-presenting cells and exosomes that present any of the peptides, as well as methods for inducing antigen-presenting cells are also provided. The present invention further provides pharmaceutical agents containing the CDCA1 polypeptides or polynucleotides encoding thereof, as well as exosomes and antigen-presenting cells as active ingredients. Furthermore, the present invention provides methods for treating and/or prophylaxis of (i.e., preventing) cancers (tumors), and/or prevention of postoperative recurrence thereof, as well as methods for inducing CTLs, methods for inducing anti-tumor immunity, using the CDCA1 polypeptides, polynucleotides encoding the polypeptides, exosomes or antigen-presenting cells presenting the polypeptides, or the pharmaceutical agents of the present invention. The cancers to be targeted include, but are not limited to, breast cancer, bladder cancer, esophageal cancer, small cell lung cancer (SCLC) and non-small cell lung cancer (NSCLC).

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