

ABSTRACT

ANTI-GPC3 ANTIBODY

An object of the present invention is to provide: an anti-GPC3 antibody that recognizes an epitope different from that for existing antibodies (e.g., GC33 and GC199) and can specifically bind, even in the form of single chain antibody, to GPC3 localized on a cell membrane; CAR comprising the anti-GPC3 single chain antibody; an immunocompetent cell expressing the CAR; a gene of the anti-GPC3 antibody or a gene of the CAR; a vector comprising the anti-GPC3 antibody gene or the CAR gene; a host cell in which the vector has been introduced; a method for specifically detecting GPC3; and a kit for specifically detecting GPC3. An antibody comprising particular heavy chain CDR1 to CDR3 and particular light chain CDR1 to CDR3 defined in claim 1, and specifically binding to a human-derived GPC3 polypeptide specifically binds to GPC3 localized on a cell membrane. CAR-immunocompetent cells prepared on the basis of CAR comprising such single chain antibody are useful for cancer immunotherapy.

[No suitable figure]