ABSTRACT

An object of the present invention is to provide CAR-expressing T cells that coexpress a chimeric antigen receptor (CAR) and a T cell immune function-enhancing factor and have a high immunity-inducing effect and antitumor activity, and to provide a CAR expression vector for the preparation of the CAR-expressing T cells.

A CAR expression vector comprises a nucleic acid encoding a chimeric antigen receptor (CAR) and a nucleic acid encoding a T cell immune function-enhancing factor, wherein the nucleic acid encoding an immune function-enhancing factor is a nucleic acid encoding interleukin-7 and a nucleic acid encoding CCL19, a nucleic acid encoding a dominant negative mutant of SHP-1, or a nucleic acid encoding a dominant negative mutant of SHP-2, or a CAR-expressing T cell introduced with the CAR expression vector are prepared.

Figure 2