CLAIMS

1. A CAR expression vector comprising 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 the T cell immune function-enhancing factor is a nucleic acid encoding interleukin-7 and a nucleic acid encoding CCL19.

2. The CAR expression vector according to claim 1, wherein the nucleic acid encoding the CAR and the nucleic acid encoding the T cell immune function-enhancing factor are linked via a sequence encoding a self-cleaving peptide.

3. The CAR expression vector according to claim 1 or 2, wherein the nucleic acid encoding interleukin-7 and the nucleic acid encoding CCL19 are linked via a sequence encoding a self-cleaving peptide.

4. The CAR expression vector according to any one of claims 1 to 3, wherein the nucleic acid encoding the CAR contains a nucleic acid encoding a polypeptide of a single chain antibody that recognizes FITC or CD20.

5. The CAR expression vector according to any one of claims 1 to 4, wherein the nucleic acid encoding the CAR contains a nucleic acid encoding a polypeptide of a CD8 transmembrane region.

6. The CAR expression vector according to any one of claims 1 to 5, wherein the nucleic acid encoding the CAR contains nucleic acids encoding polypeptides of a CD28 intracellular region, a 4-1BB intracellular region, and a CD3ζ intracellular region.

7. A CAR-expressing T cell introduced with the following vector (a) or (b):

(a) the CAR expression vector according to any one of claims 1 to 6;

(b) a CAR expression vector containing a nucleic acid encoding a CAR and a nucleic acid encoding interleukin-7, and a CAR expression vector containing a nucleic acid encoding CAR and a nucleic acid encoding CCL19.

8. An anticancer agent comprising the CAR-expressing T cell according to claim 7 and a pharmaceutically acceptable additive.

9. A T cell expressing a CAR, interleukin-7, and CCL19.

10. An anticancer agent comprising the T cell according to claim 9 and a pharmaceutically acceptable additive.