

WHAT IS CLAIMED IS:

1. A method for treating a subject, comprising
 - (a) adoptively transferring to the subject an effective amount of a composition comprising a CAR-T cell, and
 - (b) administering to the subject an Akt inhibitor in an amount effective to increase the persistence of the CAR-T cells.
2. The method of claim 1, wherein the Akt inhibitor is Triciribine (TCN).
3. The method of claim 1 or 2, wherein the CAR-T cell comprises an immune effector cell comprising a chimeric antigen receptor (CAR) polypeptide that comprises a tumor associated antigen (TAA) binding domain, a transmembrane domain, an intracellular signaling domain, and a co-stimulatory signaling region.
4. The method of claim 3, wherein the immune effector cell is selected from the group consisting of an $\alpha\beta$ T cell, $\gamma\delta$ T cell, a Natural Killer (NK) cells, a Natural Killer T (NKT) cell, a B cell, an innate lymphoid cell (ILC), a cytokine induced killer (CIK) cell, a cytotoxic T lymphocyte (CTL), a lymphokine activated killer (LAK) cell, a regulatory T cell, or any combination thereof.
5. A method for enhancing CAR-T cell therapy in a subject, comprising administering to a subject undergoing adoptive cell transfer of therapeutic CAR-T cells an Akt inhibitor in an amount effective to increase the persistence of the CAR-T cells.
6. The method of claim 5, wherein the Akt inhibitor is Triciribine (TCN).
7. The method of claim 5 or 6, wherein the CAR-T cell comprises an immune effector cell comprising a chimeric antigen receptor (CAR) polypeptide that comprises a tumor associated antigen (TAA) binding domain, a transmembrane domain, an intracellular signaling domain, and a co-stimulatory signaling region.
8. The method of claim 7, wherein the immune effector cell is selected from the group consisting of an $\alpha\beta$ T cell, $\gamma\delta$ T cell, a Natural Killer (NK) cells, a Natural Killer T (NKT) cell, a B cell, an innate lymphoid cell (ILC), a cytokine induced killer (CIK) cell, a cytotoxic T lymphocyte (CTL), a lymphokine activated killer (LAK) cell, a regulatory T cell, or any combination thereof.
9. A chimeric antigen receptor effector memory T (CAR-T_{EM}) cell for use in adoptive cell therapy, comprising a purified population of CD45RO⁺/CCR7⁻/CD62L⁻ T cells engineered to express a chimeric antigen receptor (CAR) polypeptide.
10. The CAR-T_{EM} cell of claim 9, wherein the CAR polypeptide does not comprise a CD28 co-stimulatory domain.

11. CAR-T_{EM} cell of claim 9 or 10, wherein the CAR polypeptide comprises a 41BB co-stimulatory domain.
12. A method for producing the CAR-T_{EM} cells of any one of claims 9 to 11, comprising
 - (a) isolating PBMCs from a donor, isolating T cells from the PBMCs,
 - (b) stimulating the T cells with CD3/CD28 beads,
 - (c) transducing the activated T cells with a viral vector encoding a CAR polypeptide,
 - (d) expanding the CAR-T cells in a culture medium containing an Akt inhibitor in an amount effective to increase the proportion of effector memory T cells, and
 - (e) sorting the CAR-T cells to isolate CD45RO⁺/CCR7⁻/CD62L⁻ CAR-T_{EM} cells.
13. The method of claim 12, wherein the CAR-T_{EM} cells are CD8⁺/CD4⁻ T cells.
14. The method of claim 12 or 13, wherein the Akt inhibitor is Triciribine (TCN).
15. The method of any one of claims 12 to 14, further comprising
 - (e) sorting the CAR-T cells to isolate CD45RO⁺/CCR7⁻/CD62L⁻ CAR-T_{EM} cells.
16. The method of any one of claims 12 to 15, wherein the culture medium contains from 1 to 10 μ M of the Akt inhibitor.
17. The method of claim 15, wherein the culture medium contains 3 μ M of the Akt inhibitor.
18. The method of any one of claims 12 to 17, wherein the CAR polypeptide does not comprise a CD28 co-stimulatory domain.
19. The method of any one of claims 12 to 18, wherein the CAR polypeptide comprises a 41BB co-stimulatory domain.