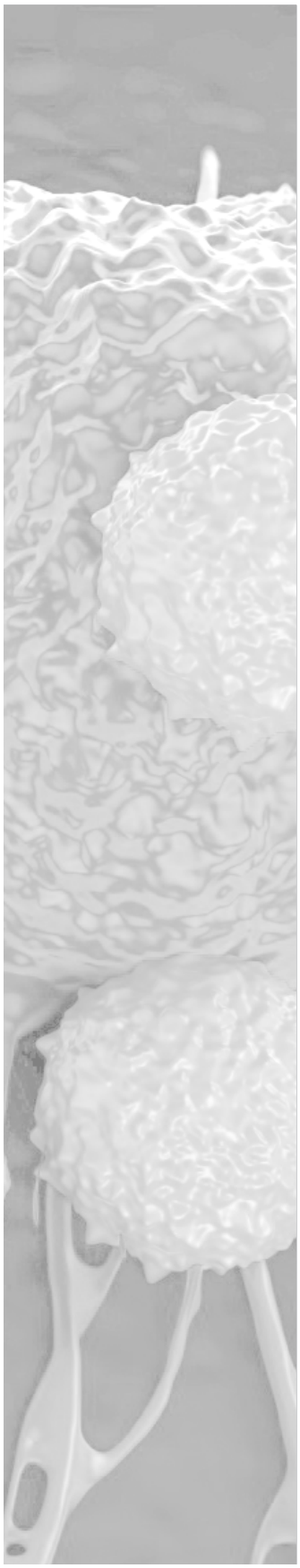
ProMab Biotechnologies, Inc.

PM-CAR1007 CD19SCFV-FLAG-CD28-CD3ζ ST-1016-1

Ready-to use-CAR-T cells



Promab Biotechnologies' CAR-T new product development programs are being designed for pre-clinical and future clinical applications.

CAR-T cells can be used for:

1. Compound screening
2. Antibody screening
3. Co-stimulatory and activation domain comparison
4. Personalized medicine and donor variations for CAR-T screening
5. Checkpoint inhibitors
6. Safety switches and regulators of CAR-T functions
7. Pre-clinical in vivo models
8. Treg and T memory cells in CAR-T setting
9. CAR-T signaling, tumor microenvironment
10. Proof of concept studies for clinical trials

The structure of CAR from Promab's available CAR-T cells targeting CD19 antigen:

B-lymphocyte antigen CD19, also known as CD19 (Cluster of Differentiation 19), is a protein that in humans is encoded by the CD19 gene. It is found on the surface of B-cells, a type of white blood cell and is used as a tumor antigen for CAR-T immunotherapy. The flag tag is inserted for additional detection of scFv with Flag tag antibody.

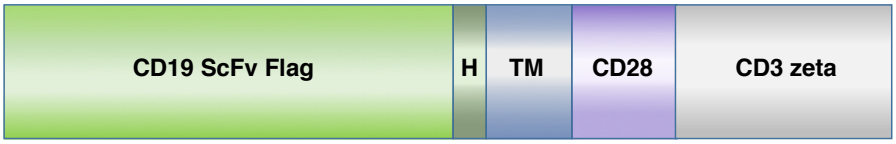


Figure 1. CAR-T cells expressing the above constructs are available from Promab targeting CD19 antigen. ScFv, single chain variable fragment. Flag tag is C-terminal to CD19 scFv.

ProMab Biotechnologies, Inc. | 2600 Hilltop Drive, Building B, Suite C320, Richmond, CA 94806 USA
Toll free 1-866-339-0871 | 1-510-860-4615 (Sales) | 1-510-860-4614 (Technical Support) | Fax 1-510-740-3625 | info@ProMab.com | www.ProMab.com

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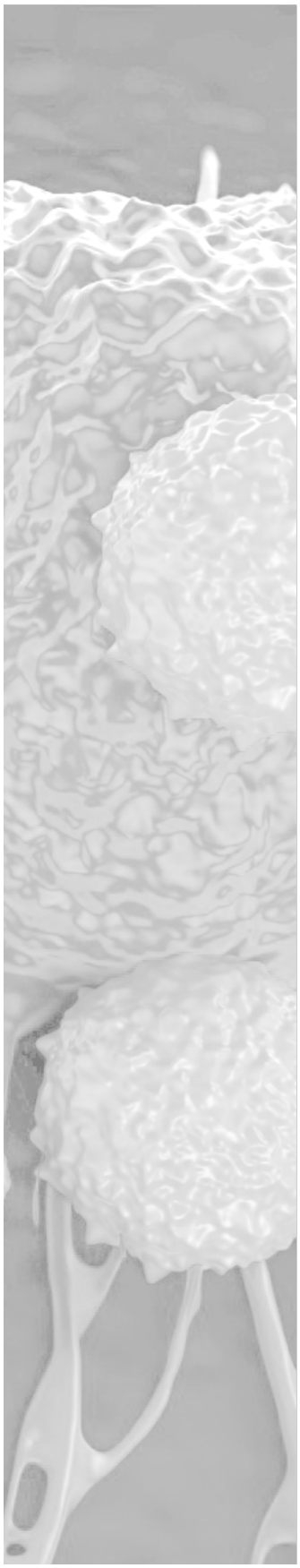

Data

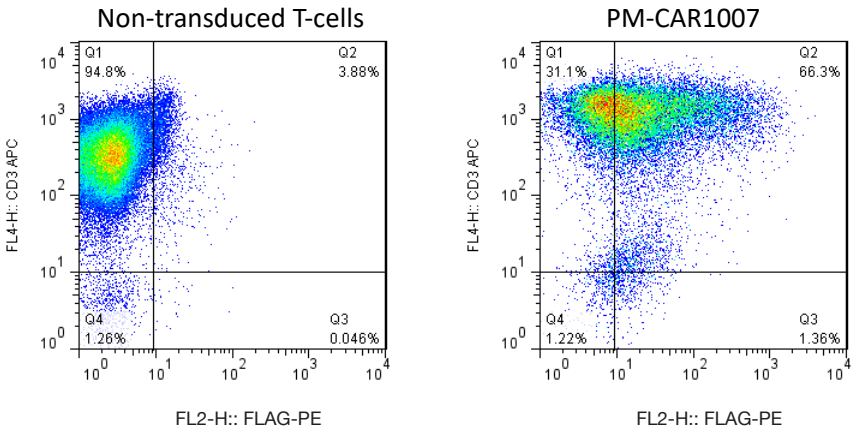

Figure 2. FACS analysis with FLAG-tag antibody to detect CAR expression in CD19scFv-FLAG-CD28-CD3z CAR-T cells. Left: non-transduced T-cells. Right: CD19scFv-FLAG-CD28-CD3z CAR-T cells. These CAR-T cells show excellent cytotoxicity (next figure).

Data

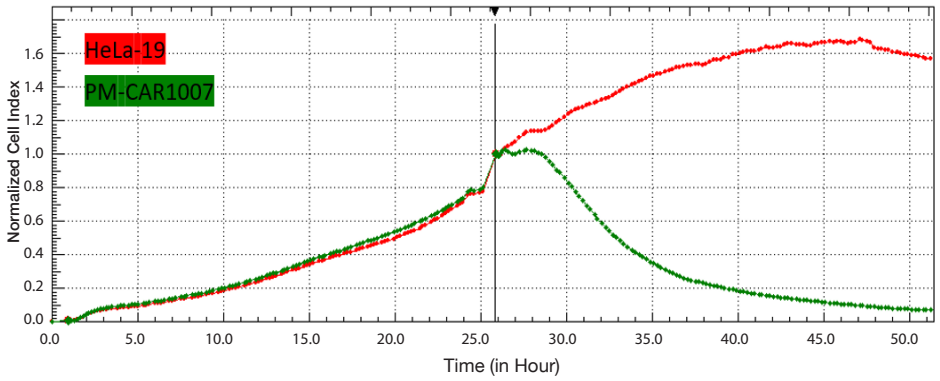

Figure 3. CD19scFv-FLAG-CD28-CD3ζ cells show a significant cytotoxic effect on target cells over-expressing the CD19 antigen. Cytotoxicity killing was verified by RTCA using an Effector:Target ratio of 10:1.

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