

Products and Services

- Mouse Monoclonal Antibody
- Rat Monoclonal Antibody
- Human Antibody
- Hybridoma Sequencing
- Polyclonal Antibody

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:

Mesothelin protein is overexpressed in many types of tumors (ovarian and pancreatic cancers). Mesothelin-CAR-T cells can be used to target Mesothelin antigen.

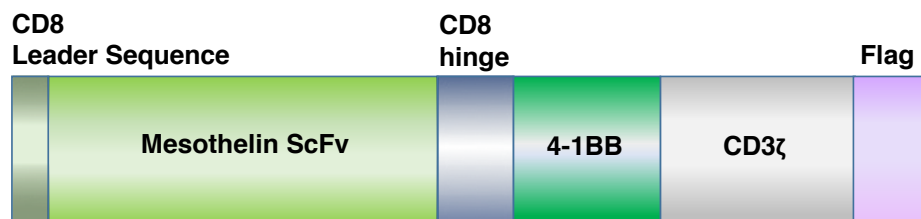


Figure 1. CAR-T cells expressing the above constructs are available from ProMab targeting Mesothelin antigens. ScFv means single chain variable fragment. These CAR-T cells are generated with Mesothelin scFv-FLAG-4-1BB-CD3ζ CAR construct.

To date, ProMab has generated 2nd generation CAR and CAR controls (as shown in Figure 1). ProMab has also generated CAR-T cells and CAR-NK (Natural Killer) effector cells against cancer target cells that show excellent functionality, including dose-dependent and target cell-specific cytotoxic activity.

These CAR-T cells can be tested with target cells in cytotoxic assays and used for testing modulators of immune checkpoint inhibitors (PD-1, CTLA-4 pathways), activators of immune response, or small molecules affecting T-cell or T-reg activity.



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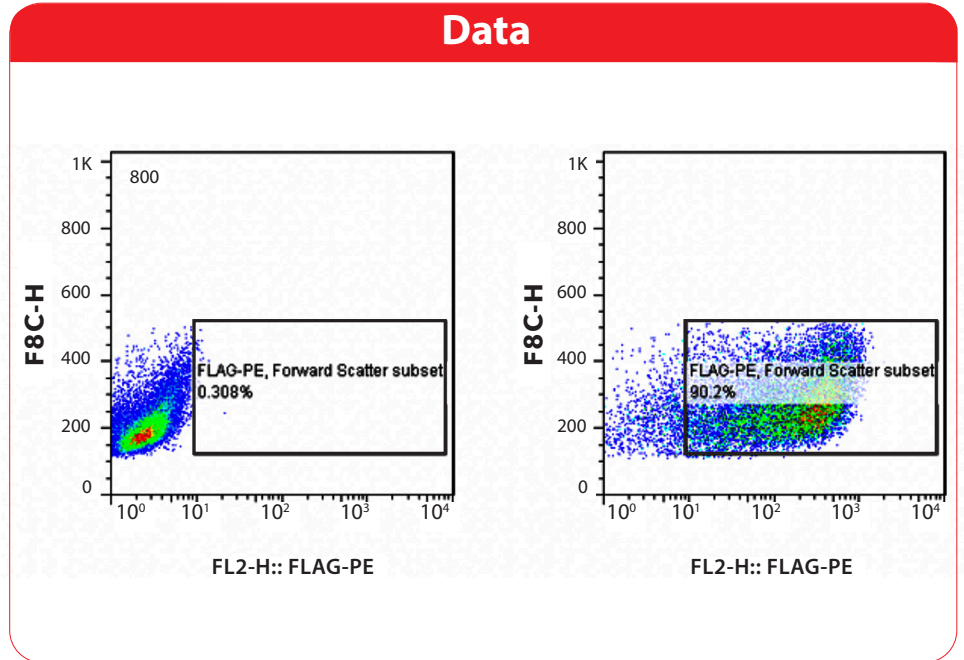


Figure 2. Detection of PM-CAR1014 (PMC434) by FACS stained with FLAG-PE antibody (Biolegend; Cat #637310) [1:100]. Left panel: non-transduced cells. Right panel: PM-CAR1014 (PMC434).

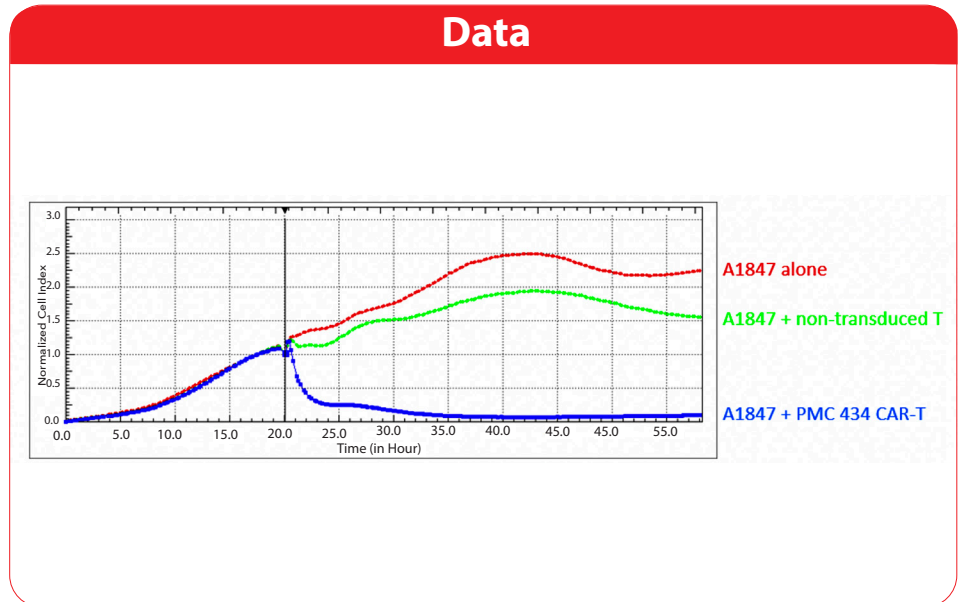


Figure 3. Mesothelin scFv-FLAG-4-1BB-CD3ζ (PMC 434) CAR-T cells specifically kill A1847-Mesothelin-positive cancer cells.