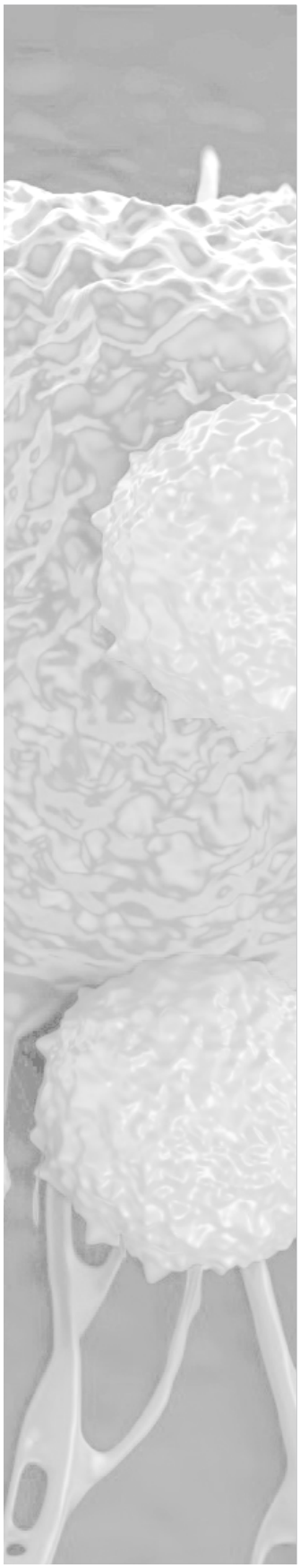
ProMab
Biotechnologies, Inc.

PM-CAR1012 MESOTHELIN SCFV-CD28-4-1BB-CD3ζ ST-1012-2

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 Mesothelin antigen

Mesothelin is a protein present on normal mesothelial cells and is overexpressed in several human tumors, including mesothelioma, ovarian and pancreatic adenocarcinoma. Mesothelin can be used as a tumor antigen for targeting by CAR-T immunotherapy.

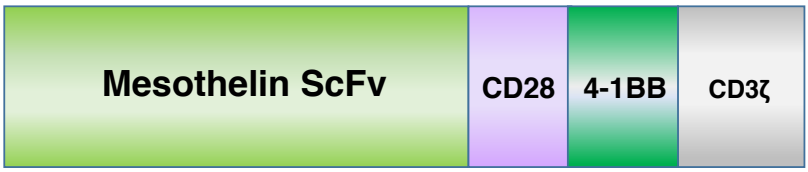


Figure 1. CAR-T cells expressing the above constructs are available from Promab targeting Mesothelin antigen. ScFv, single chain variable fragment.

To date Promab generated 2nd or 3rd generation CAR and CAR controls (2nd generation of CAR is shown in Figure 1), CAR-T cells and CAR-Natural Killer (NK) effector cells against cancer target cells that show excellent functionality, including dose-dependent and target cell- specific cytotoxic activity (Figure 2).

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

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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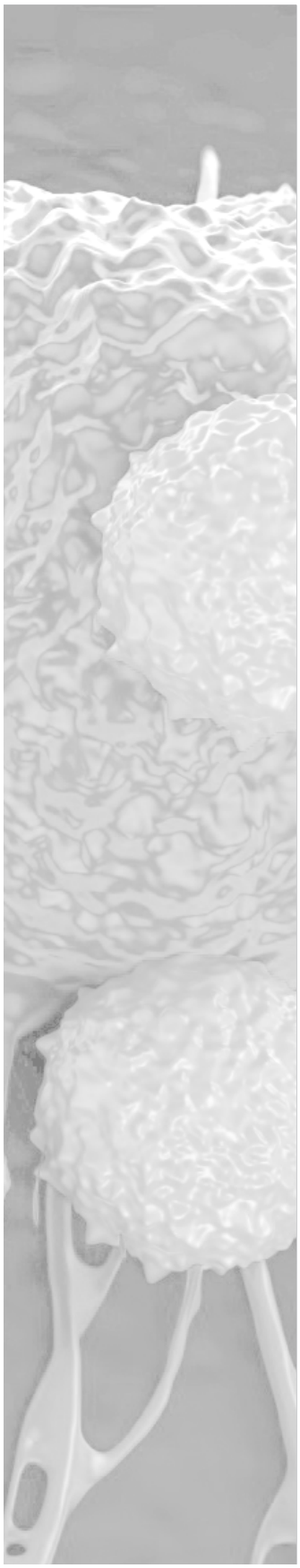

Data

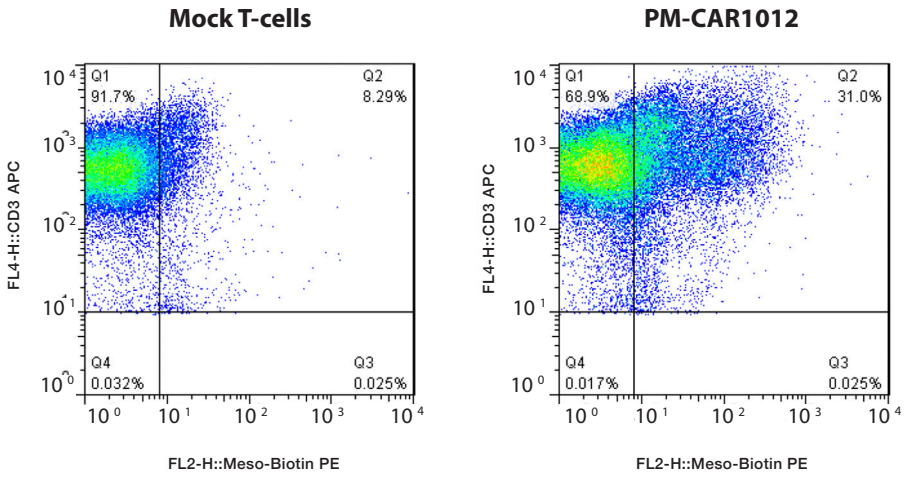

Figure 2. Detection of PM-CAR1012 by FACS stained with Mesothelin recombinant protein labeled with biotin. Left panel: Non-transduced T cells. Right panel: PM-CAR1012.

Data

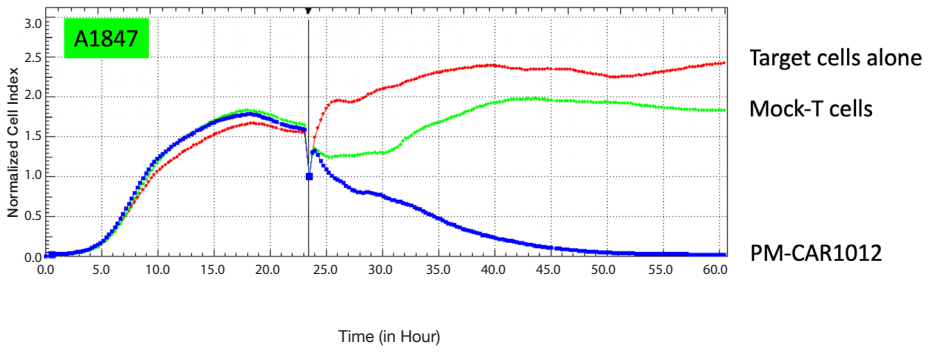

Figure 3. Mesothelin scFv-CD28-4-1BB-CD3z (PM-CAR1012) CAR-T cells specifically kill A1847 Mesothelin-positive cancer cells.

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