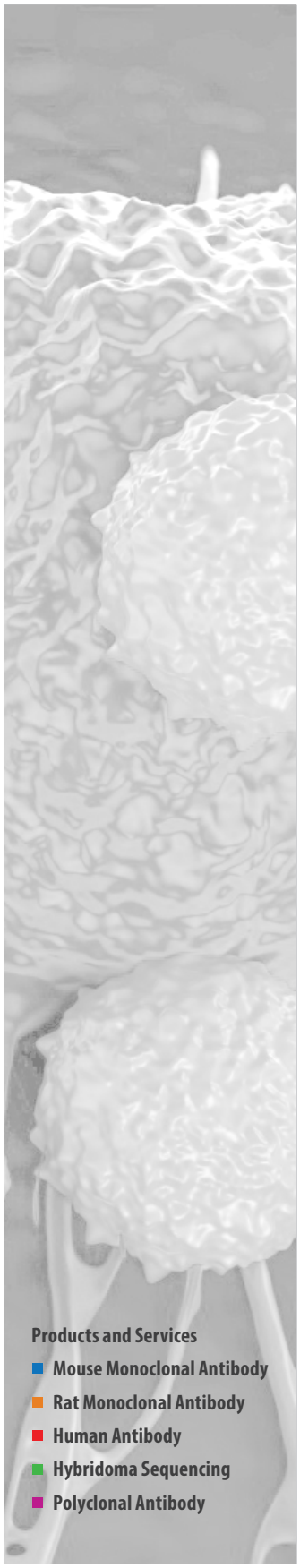
ProMab
Biotechnologies, Inc.

PM-CAR1023-1M EGFR-TM28-GITR-CD3ζ PM-0031

Ready-to use-CAR-T cells



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's available CAR-T cells targeting EGFR antigen

EGFR (epidermal growth factor receptor (EGFR; ErbB-1; HER1) is a cell-surface receptor for the epidermal growth factor family (EGF family) receptors (Her-2, Her-3, Her-4). EGFR-1 is overepxressed in a number of tumors: breast, lung, glioblastoma and other types and can be used as a marker for CAR-T immunotherapy. The EGFR-CAR-T cells are available with CD28, 4-1BB and GITR co-activation domains (Figure 1).

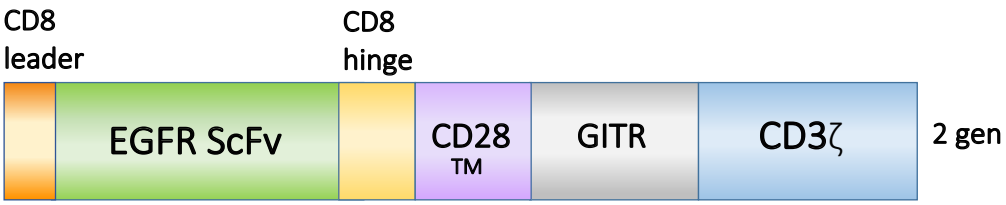


Figure 1. CAR-T cells expressing the above constructs are available from Promab targeting EGFR antigen. ScFv, single chain variable fragment. These CAR-T cells are generated with EGFR-GITR-CD3 zeta construct.

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.

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 T reg activity.

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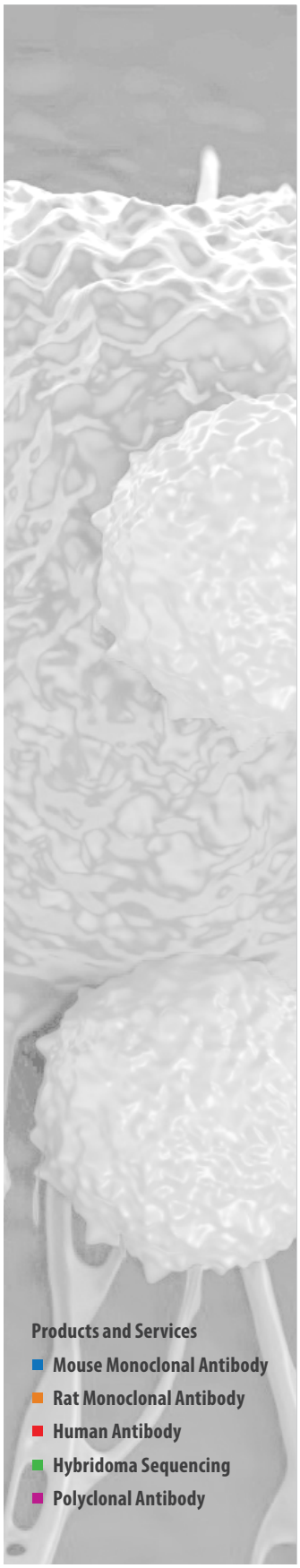

Data

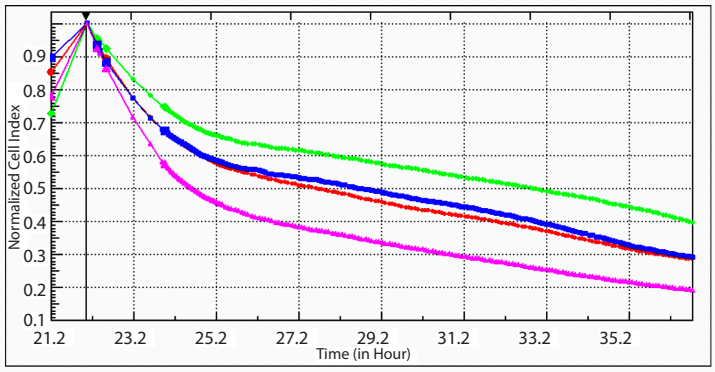

Figure 2. RTCA cytotoxicity activity of effector EGFR-GITR-CD3-CAR-T cells against MDA-231 target cells. Effector:Target cells ratio=10:1.