

**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**

CD138 protein is often overexpressed in leukemia and lymphoma. It is used for targeting this hematological diseases in clinical trials.

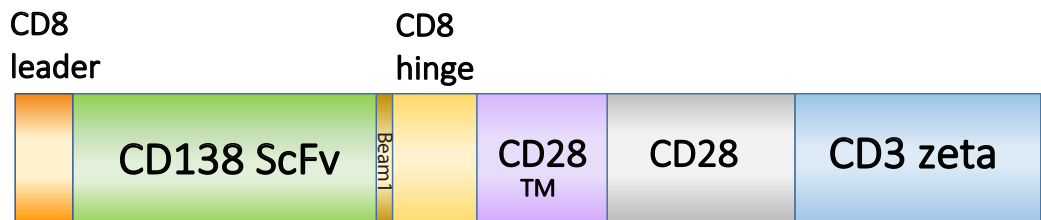


Figure 1. CAR-T cells expressing the above constructs are available from ProMab targeting CD138 antigen. ScFv, single chain variable fragment. These CAR-T cells are generated with CD138-Beam1-CD28-CD3 zeta CAR construct.

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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**Data**

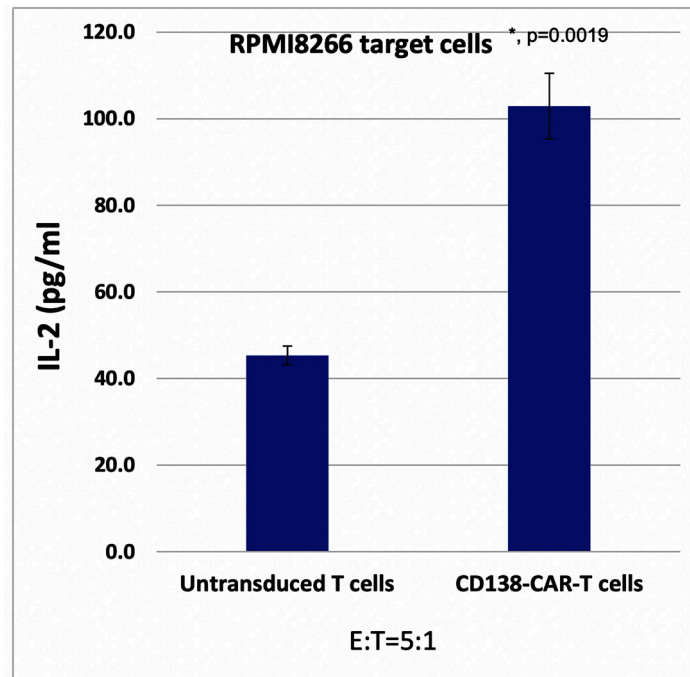
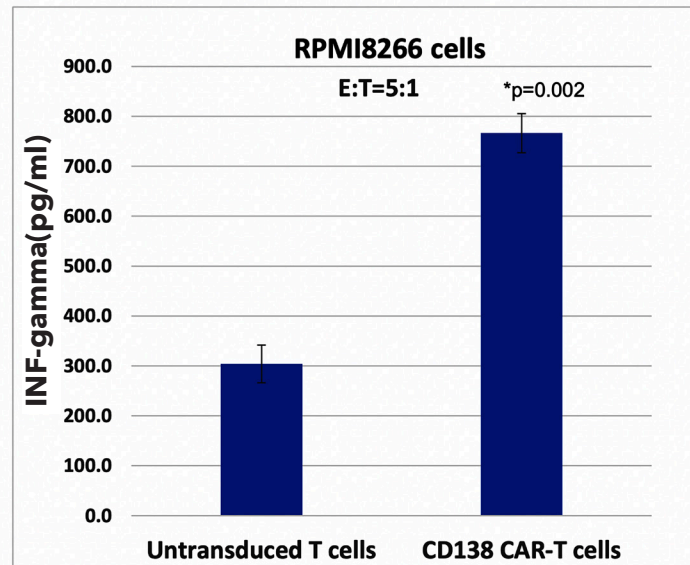


Figure 2. CD138-CD28-CD3-CAR-T cells secrete significant level of IFN-gamma (top panel) and IL-2 (bottom panel) against RPMI8226 multiple myeloma target cells. Effector: Target cells ratio=5:1.