

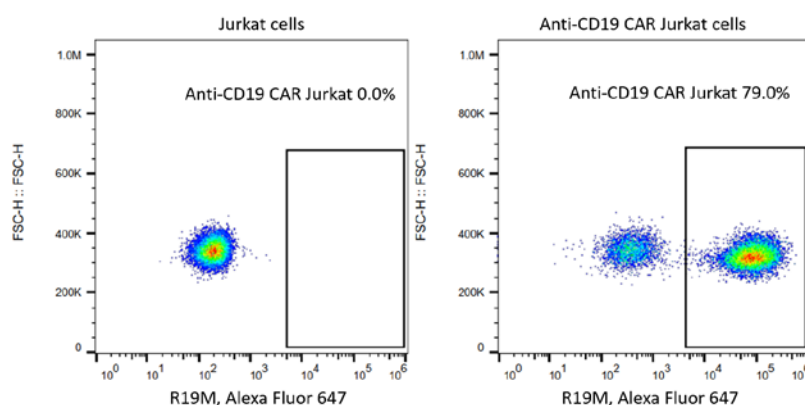
Technical Data Sheet

Rabbit Anti-Mouse FMC63 scFv Monoclonal Antibody

Product Information	
Product No.	200120
Concentration	1.0 mg/mL
Size	100 µg
Antibody Types	Monoclonal
Antibody Format	Whole IgG
Clone	R19M
Immunogen	scFv region of a CD19-specific mouse mAb clone FMC63
Host Species	Rabbit
Reactivity	Mouse
Storage Buffer	PBS, pH 7.4
Storage conditions	-20°C

Description

The rabbit monoclonal antibody R19M specifically binds to the scFv region of a CD19-specific mouse monoclonal antibody (mAb, clone FMC63). CD19 antigen is a B-cell specific cell surface antigen, which is expressed in all B-cell lineage malignancies and normal B-cells. The scFv region of FMC63 has been used to develop CD19-specific chimeric antigen receptor (CAR) T cells utilized in clinical trials.



Flow cytometric analysis of anti-CD19 CAR expression on human cell line Jurkat cells. Jurkat cells were transduced with lentivirus encoding anti-CD19 CAR and cultured. 2×10^5 cells were stained for the expression of anti-CD19 CAR with Rabbit Anti-Mouse FMC63 scFv Monoclonal Antibody (Product No. 200120, right panel). Secondary staining was carried out with AffiniPure F(ab')₂ Fragment Goat anti-Rabbit IgG(H+L), Alexa Fluor 647 (Product No. 700002). Non-transduced Jurkat cells were used as a control for gating of CAR expression (left panel).

Preparation & Storage

- Store undiluted at -20°C.
- Avoid freeze/thaw cycle of the reagent.
- The monoclonal antibody was purified by Protein A.

Application Notes

Application

Flow cytometry

Routinely Tested

Intellectual Product Notices

1. Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BioSwan will not be held responsible for patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of BioSwan Company is strictly prohibited.

Application References

1. Wei Wu et al., "Multiple Signaling Roles of CD3ε and Its Application in CAR-T Cell Therapy," *Cell* 182, no. 4 (August 2020): 855-871.e23, <https://doi.org/10.1016/j.cell.2020.07.018>.
2. Ming Sun et al., "Novel Two-Chain Structure Utilizing KIRS2/DAP12 Domain Improves the Safety and Efficacy of CAR-T Cells in Adults with r/r B-ALL," *Molecular Therapy - Oncolytics* 23 (December 2021): 96-106, <https://doi.org/10.1016/j.omto.2021.08.014>.
3. Sangya Agarwal et al., "Production of Human CRISPR-Engineered CAR-T Cells," *Journal of Visualized Experiments*, no. 169 (March 15, 2021): 62299, <https://doi.org/10.3791/62299>.
4. Kai Rejeski et al., "Oligoclonal T-Cell Expansion in a Patient with Bone Marrow Failure after CD19 CAR-T Therapy for Richter-Transformed DLBCL," *Blood* 140, no. 20 (November 17, 2022): 2175-79, <https://doi.org/10.1182/blood.2022017015>.
5. Wenbin Qian et al., "Safety and Feasibility of Anti-CD19 CAR T Cells Expressing Inducible IL-7 and CCL19 in Patients with Relapsed or Refractory Large B-Cell Lymphoma," *Blood* 140 (Supplement 1) (2022): 12722, <https://doi.org/10.21203/rs.3.rs-2124394/v1>.
6. Gongqiang Wu et al., "Preclinical Evaluation of CD70-Specific CAR T Cells Targeting Acute Myeloid Leukemia," *Frontiers in Immunology* 14 (February 10, 2023): 1093750, <https://doi.org/10.3389/fimmu.2023.1093750>.
7. Jie Cheng et al., "Cancer-Cell-Derived Fumarate Suppresses the Anti-Tumor Capacity of CD8+ T Cells in the Tumor Microenvironment," *Cell Metabolism* 35, no. 6 (June 2023): 961-978.e10, <https://doi.org/10.1016/j.cmet.2023.04.017>.
8. Jiali Cheng et al., "Monitoring Anti-CD19 Chimeric Antigen Receptor T Cell Population by Flow Cytometry and Its Consistency with Digital Droplet Polymerase Chain Reaction," *Cytometry Part A* 103, no. 1 (January 2023): 16-26, <https://doi.org/10.1002/cyto.a.24676>.
9. Kathryn R Michels et al., "Preclinical Proof of Concept for VivoVec, a Lentiviral-Based Platform for in Vivo CAR T-Cell Engineering," *Journal for ImmunoTherapy of Cancer* 11, no. 3 (March 2023): e006292, <https://doi.org/10.1136/jitc-2022-006292>.
10. Agarwal, Sangya et al. "Deletion of the inhibitory co-receptor CTLA4 enhances and invigorates chimeric antigen receptor T cells." *Immunity* (2023): n. pag.