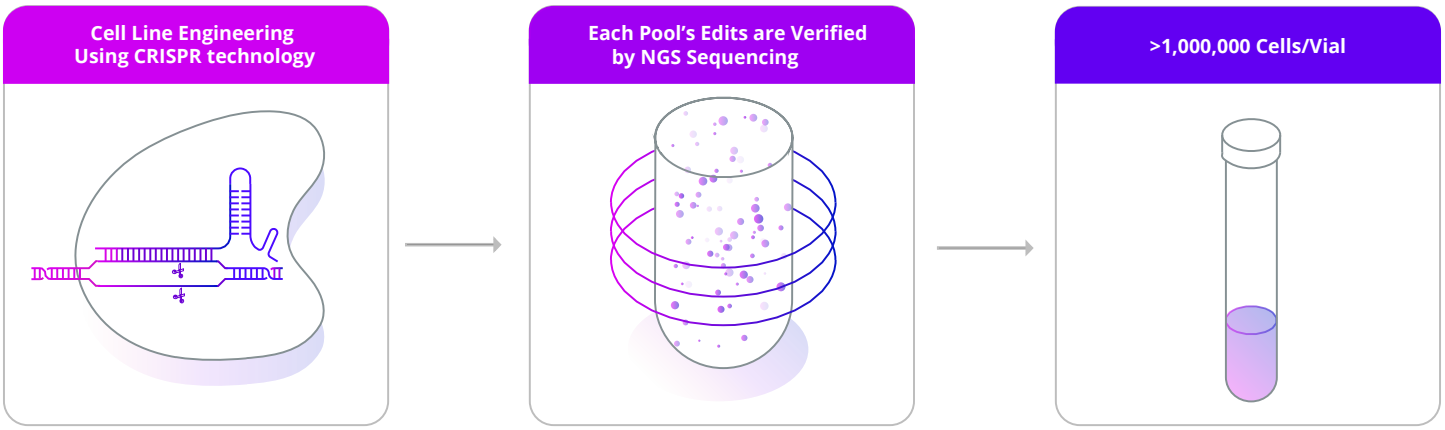
T Cell Knockout Pools

Advance your immunology research with edited-to-order primary T cells

High editing efficiency with reliable post-editing functionality. Order Primary Cells supplied by EditCo or work with our team to edit your primary cell type of interest.



Skip to the main experiments with edited T cells

- **Confident Knockouts:** minimum 80% editing efficiency guaranteed unique XDel guide design.
- **Faster Results:** A 7-day editing protocol delivers results in 2 weeks or faster.
- **Flexibility:** Choose from EditCo-supplied cells or onboard your T cells.
- **Functionality:** High cell viability and editing levels without affecting functionality for non-essential genes.

Key Product Deliverables

- 2 vials of edited cell pools with >1,000,000 cells/vial
- Control-transfected cell pools (2 vials)
- Sequence of synthetic gRNA used
- Primer sequences used for NGS sequencing
- NGS squencing analysis report for each edited pool after expansion
- Comprehensive QC report that includes the following information: mycoplasma test (positive/negative) and passage number
- Regular updates on your order's progress

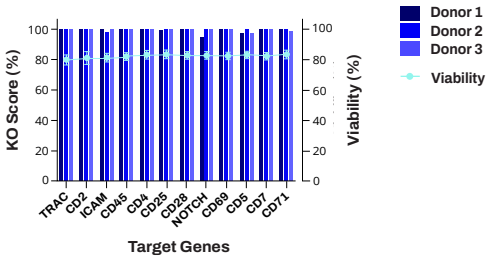
Using other primary cell lines?
Check out our new edited fibroblasts or reach out to us about custom projects

Scan to learn more

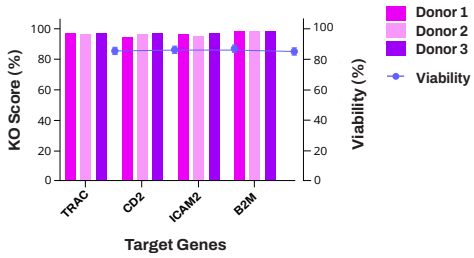
EditCo

Secure guaranteed KOs with EditCo's proprietary editing capabilities

CD4+ T Cell Editing Efficiency and Viability



CD8+ T Cell Editing Efficiency and Viability

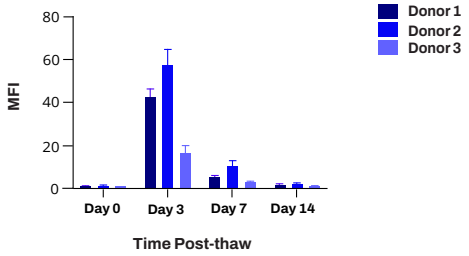


Editing efficiency and viability. EditCo's gene editing process achieves close to 100% gene editing efficiency while maintaining cell viability above 80% in both CD4+ and CD8+ T cells across all targeted knockout genes.

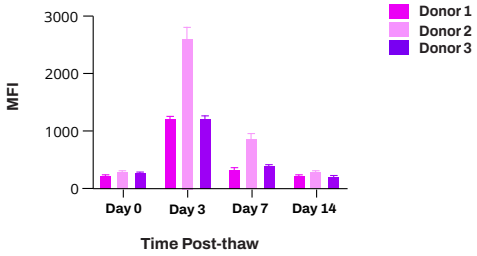
- Guaranteed high editing efficiency (>80%) using EditCo's unique XDel multiple guide design to create large fragment deletions within a target gene
- Donor agnostic editing performance
- High cell viability at time of freeze (>70%)

Trust that your T cells remain fit post editing

CD4+ T Cell Exhaustion



CD8+ T Cell Exhaustion

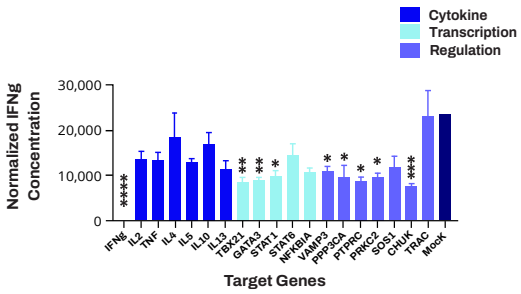


Transient expression of exhaustion marker PD-1. The intensity of PD-1 expression in edited T cells was measured after thawing and culturing with IL-2 and a T cell receptor cross-linking activator for up to 14 days. The charts display the average Median Fluorescence Intensity (MFI) and standard deviation at each time point. PD-1 expression peaks on day 3 and returns to baseline levels by day 14.

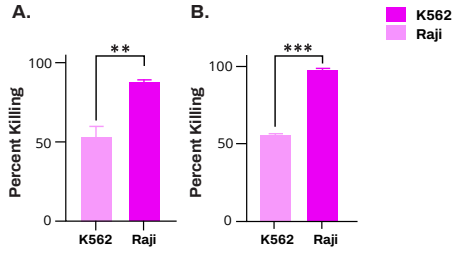
- Genomic stability is maintained more than 14 days post-thaw ensuring stable knockouts
- Transient expression of exhaustion marker PD-1 following TCR re-stimulation three days after thaw
- High growth (30x–60x) and (viability >90%) post-thaw

Access assay-ready, functional, edited T cells

Edited CD4+ T cells Secrete Cytokines



Edited CD8+ T cells Mediate Target Cell Killing



Cytokine secretion in edited cell pools following cell expansion. Edited CD4+ T cells from 3 donors were thawed and then stimulated with PMA/ionomycin. Supernatants were harvested and measured for concentrations of IFNG by FACS-ELISA (Miltenyi). Values were quantile normalized to reduce batch effects. Following ANOVA, Tukey's multiple comparison test was performed. (*) p<0.05; (**) p<0.01; (***) p<0.005; (****) p< 0.0001.

Antigen specific cytotoxic activity. Both non-activated **(A)** and activated **(B)** edited CD8+ T cells were cultured with either irrelevant targets (K562 CD19-) or relevant targets (Raji CD19+) in the presence of BiTE (CD3/CD19 specific) antibodies. Killing was determined by subtracting cell numbers at T16 hours from those found at T0 hours for each target. Student T-test at 16 hours (**) p<0.01 and p<0.001 (***) .

- Edited CD4+ T cells
  - Intracellularly express and secrete both pro-inflammatory and anti-inflammatory cytokines
- Edited CD8+ T cells
  - Display antigen-specific cytotoxic activity
  - Mediate target cell killing
  - Can be successfully transduced with CAR lentiviruses

EditCo