CD8 human Negative Cell Isolation

When you need pure and untouched human CD8$^+$ T cells

Dynabeads® Untouched™ Human CD8 T Cells

- → Truly untouched cells—no columns required
- → High purity, yield, and viability
- → Compatible with flow cytometry

The Dynabeads® Untouched™ Human CD8 T Cells kit is the product of choice when you need truly untouched cells for your experiments. This easy-to-use kit is based on negative isolation of CD8$^+$ T cells by Dynabeads® magnetic separation technology. The gentle separation method ensures that your cells are not exposed to the stress of being passed through a column.

Truly untouched cells

The Dynabeads® are used to deplete all the unwanted cells (Figure 1), thus leaving the target cells in the sample untouched and more like the *in vivo* state. The resulting pure, viable, and untouched CD8$^+$ T cells can be directly analyzed in a flow cytometer and used in any functional assay.

High purity, yield, and viability

The isolated untouched CD8$^+$ cells are of very high purity (>85%) and viability (98%) (Figure 2). The cells are readily activated in culture with Dynabeads® CD3/CD28 T Cell Expander (Figure 3) and show antigen-specific expansion in culture (Figure 4).

The isolated CD8$^+$ T cells can be used in any cell-based assays, such as the study of CD8$^+$ T cell proliferation, apoptosis, and induction of anergy, study of antigen-specific T cells and regulation of CD8$^+$ T cell cytokine expression, and flow cytometry or fluorescence-activated cell sorting.

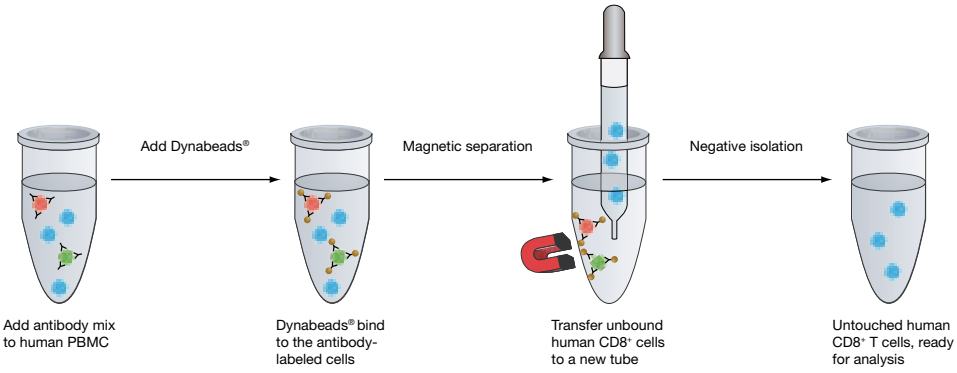

Figure 1—The gentle and stress-free Dynabeads® technology isolates untouched CD8$^+$ T cells from human peripheral blood mononuclear cells (PBMC). An antibody mix is added to bind to non-CD8$^+$ T cells (B cells, NK cells, monocytes, platelets, dendritic cells, CD4$^+$ T cells, granulocytes, and erythrocytes). Dynabeads® then bind to these antibody-labeled cells. With the aid of a DynaMag™ magnet, the bead-bound cells are captured and discarded. The remaining untouched human CD8$^+$ T cells are ready for flow analysis and any downstream application.

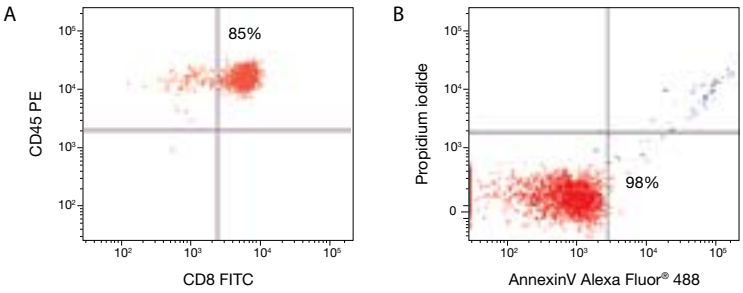

Figure 2—High cell purity and viability. CD8$^+$ cells isolated using the Dynabeads® Untouched™ Human CD8 T Cells kit show high purity (**A**) and viability (**B**). Viability was measured using annexin V and propidium iodide staining.

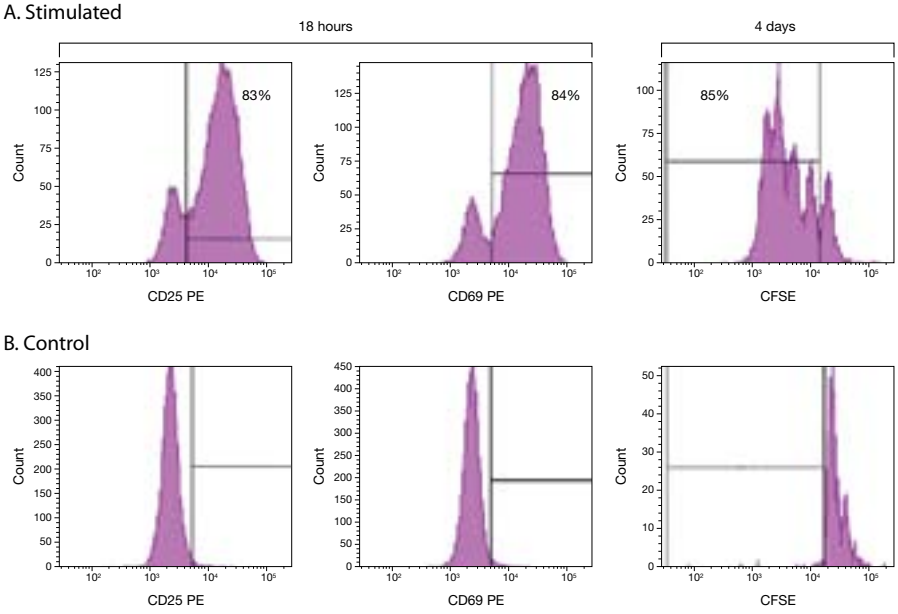

Figure 3—Activation and proliferation of CD3/CD28–stimulated CD8$^+$ T cells. Isolated CD8$^+$ cells were stimulated in culture with Dynabeads® CD3/CD28 T Cell Expander. Expression of the early activation markers CD25 and CD69 was measured by flow cytometry after 18 hours. After 4 days in culture, 85% of the cells had proliferated, as measured by carboxyfluorescein diacetate succinimidyl ester (CFSE) staining (**A**). Unstimulated CD8$^+$ T cells did not proliferate (**B**).

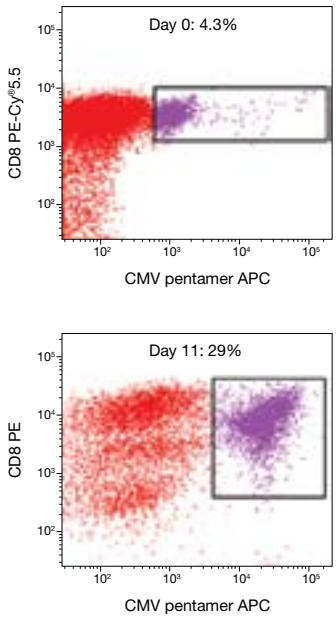

Figure 4—Antigen-specific expansion in culture. Isolated CD8$^+$ T cells were stimulated with CMV-specific peptide and irradiated autologous peripheral blood mononuclear cells (PBMC). After 11 days, expansion of antigen-specific CD8$^+$ T cells was analyzed by pentamer staining in a flow cytometer.

Ordering information

Product	Quantity	Cat. no.
Dynabeads® Untouched™ Human CD8 T Cells*	Processes up to 1 x 10^9 cells	113-48D
Related products		
Dynabeads® CD3/CD28 T Cell Expander	2 ml	111-31D
CellTrace™ CFSE Cell Proliferation Kit	1 kit	C34554
Vybrant® Apoptosis Assay Kit #2	50 assays	V13241

* This kit has replaced the Dynabeads® MyPure™ CD8 Kit 2 (Cat. no. 113-41D) and the Dynal® CD8 Negative Isolation Kit (Cat. no. 113-19D).

For the complete line of fluorescent conjugated antibodies, visit www.invitrogen.com/antibodies. For current prices, visit www.invitrogen.com. For information on DynaMag™ magnets, visit www.invitrogen.com/magnets.

Learn more about the optimal starting point for your T cell research at www.invitrogen.com/cellisolation.

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