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.

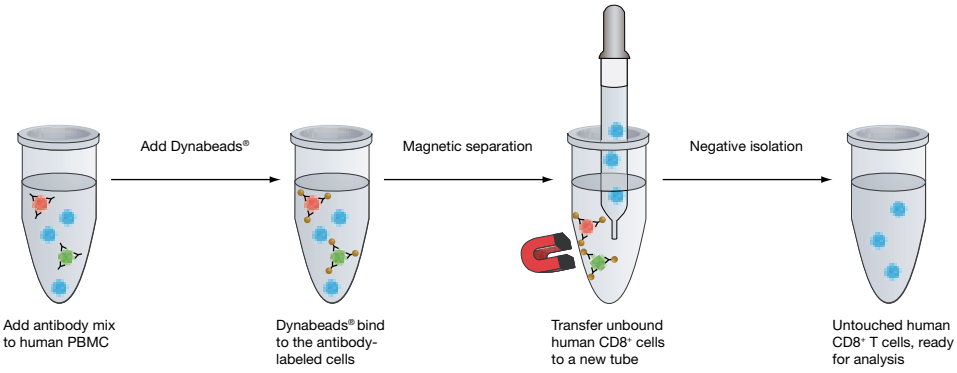

Figure 1—The gentle and stress-free Dynabeads® technology isolates untouched CD8$^+$ T cells from human peripheral blood mononuclear cells (PBMC). An antibody mix is added to bind to non-CD8$^+$ T cells (B cells, NK cells, monocytes, platelets, dendritic cells, CD4$^+$ T cells, granulocytes, and erythrocytes). 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.

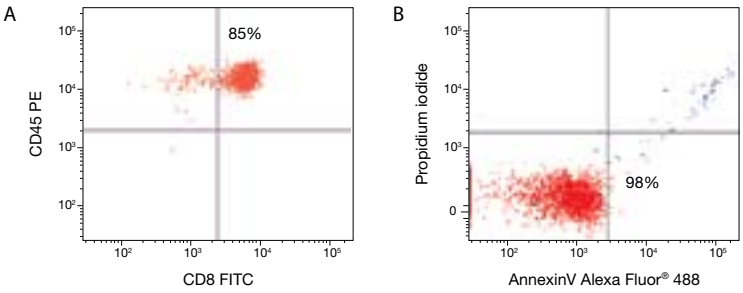

Figure 2—High cell purity and viability. CD8$^+$ cells isolated using the Dynabeads® Untouched™ Human CD8 T Cells kit show high purity (**A**) and viability (**B**). Viability was measured using annexin V and propidium iodide staining.

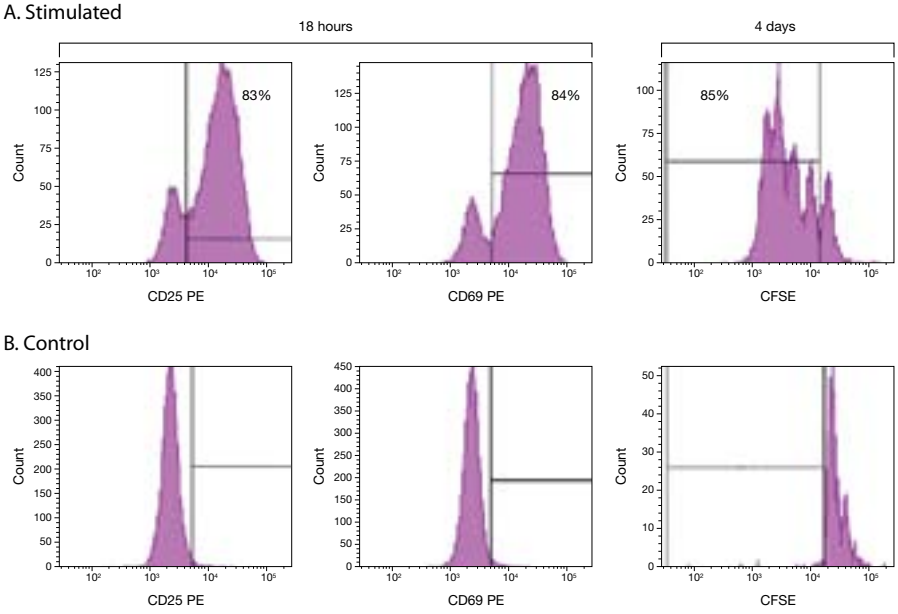

Figure 3—Activation and proliferation of CD3/CD28–stimulated CD8$^+$ T cells. Isolated CD8$^+$ cells were stimulated in culture with Dynabeads® CD3/CD28 T Cell Expander. Expression of the early activation markers CD25 and CD69 was measured by flow cytometry after 18 hours. After 4 days in culture, 85%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

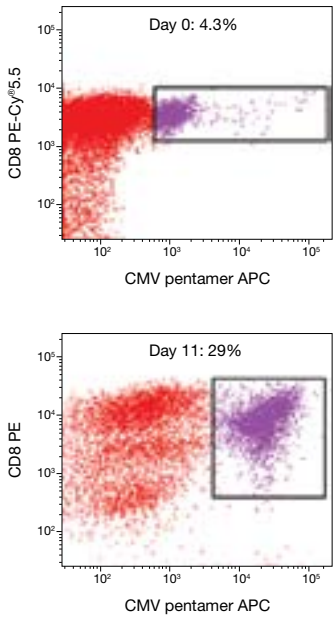

Figure 4—Antigen-specific expansion in culture. Isolated CD8$^+$ T cells were stimulated with CMV-specific peptide and irradiated autologous peripheral blood mononuclear cells (PBMC). After 11 days, expansion of antigen-specific CD8$^+$ T cells was analyzed by pentamer staining in a flow cytometer.

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.

invitrogen™ | DYNAL®

www.invitrogen.com

©2008 Invitrogen Corporation. All rights reserved. These products may be covered by one or more Limited Use Label Licenses (see Invitrogen catalog or www.invitrogen.com). By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. For research use only. Not intended for any animal or human therapeutic or diagnostic use, unless otherwise stated. **F-076810-r1 1008**