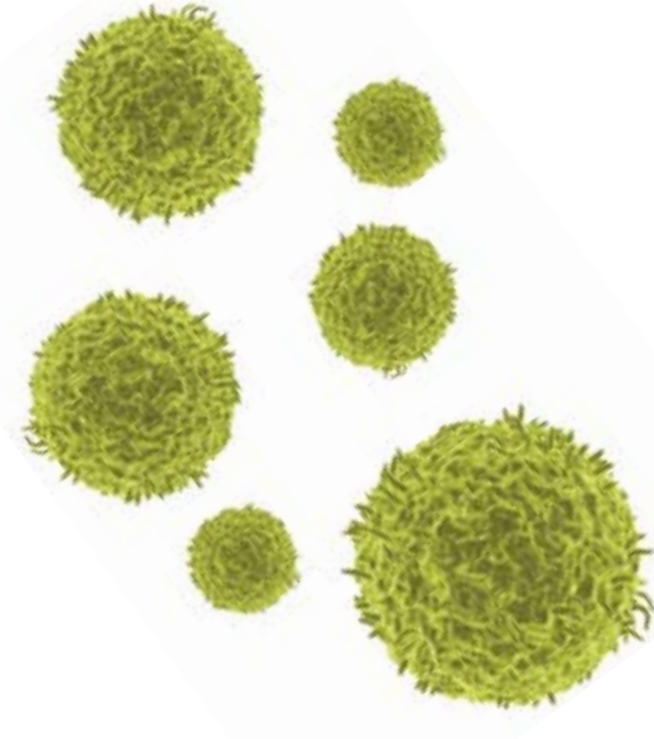




Isolate pure and untouched human CD4⁺ T cells

Dynabeads[®] Untouched[™] Human CD4 T Cells

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



When you need truly untouched cells for your experiments, the Dynabeads[®] Untouched[™] Human CD4 T Cells kit is the product of choice. This easy-to-use kit is based on negative isolation of CD4⁺ T cells by Dynabeads[®] magnetic separation technology. The resulting pure, viable, and untouched CD4⁺ T cells can be directly analyzed in a flow cytometer and used in any functional assay.

No columns required

The gentle Dynabeads[®] magnetic separation technology ensures that your cells are not exposed to the stress of being passed through a column. 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.

High purity, yield, and viability

The isolated untouched CD4⁺ cells are of very high purity (>90%), yield (average 70% recovery), and viability (~98%) (Figure 2), and are readily activated in culture with Dynabeads[®] CD3/CD28 T Cell Expander (Figure 3).

The isolated CD4⁺ T cells can be used in any cell-based assays, such as the study of CD4⁺ T cell proliferation, apoptosis, and induction of energy, study of antigen-specific T cells and regulation of CD4⁺ T cell cytokine expression, and flow cytometry or fluorescence-activated cell sorting.

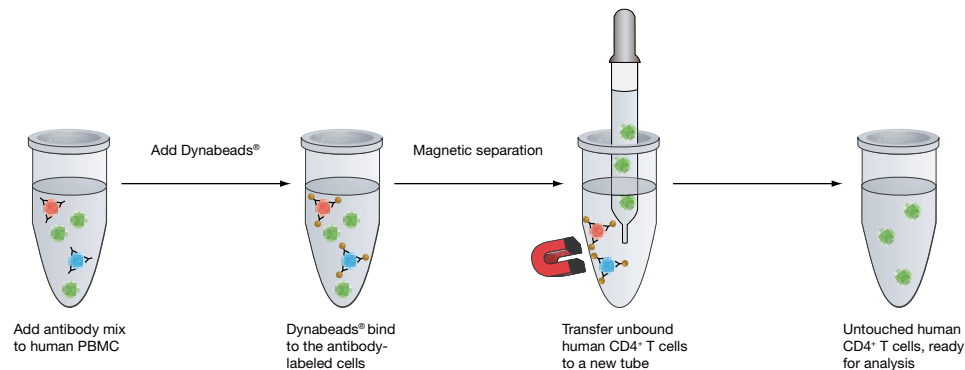


Figure 1—The gentle and stress-free Dynabeads[®] technology isolates untouched CD4⁺ T cells from human peripheral blood mononuclear cells (PBMC). An antibody mix is added to bind to non-CD4⁺ T cells (B cells, NK cells, monocytes, platelets, dendritic cells, CD8⁺ T cells, granulocytes, and erythrocytes). 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 CD4⁺ T cells are ready for flow analysis and any downstream application.



Negative Cell Isolation

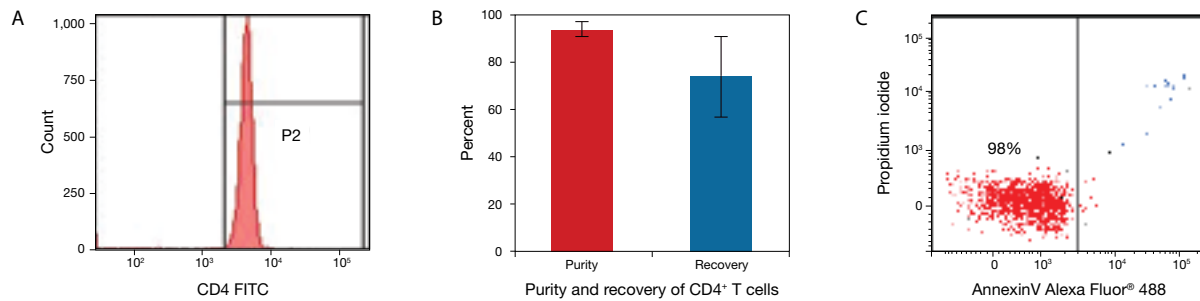


Figure 2—High cell purity, recovery, and viability. T cells isolated using the Dynabeads® Untouched™ Human CD4 T Cells kit show high purity and recovery (A and B). Viability of 98% is typically obtained, as measured by propidium iodide and annexin V staining (C).

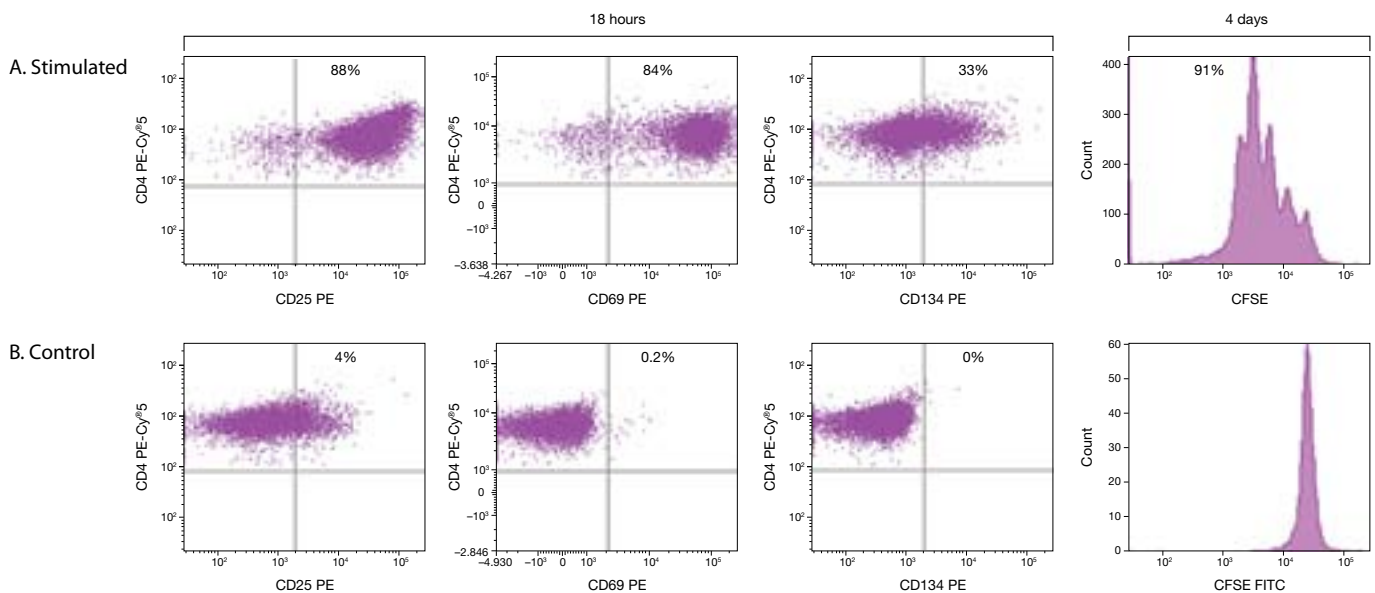


Figure 3—Activation and proliferation of CD3/CD28-stimulated CD4⁺ T cells. Isolated CD4⁺ cells were stimulated in culture with Dynabeads® CD3/CD28 T Cell Expander. Expression of the early activation markers CD25, CD69, and CD134 (OX40) was measured by flow cytometry after 18 hours. After 4 days in culture, 91% of the cells had proliferated, as measured by carboxyfluorescein diacetate succinimidyl ester (CFSE) staining (A). Unstimulated CD4⁺ T cells did not proliferate (B).

Ordering information

Product	Quantity	Cat. no.
Dynabeads® Untouched™ Human CD4 T Cells*	Processes up to 1 x 10 ⁹ cells	113-46D
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 (with Alexa Fluor® 488 annexin V and propidium iodide)	50 assays	V13241

* This kit has replaced the Dynabeads® MyPure™ CD4 Kit 2 (Cat. no. 113-39D) and the Dynal® CD4 Negative Isolation Kit (Cat. no. 113-17D).

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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