Flexibility in Cell Isolation

Introduction

Add your own biotinylated antibody to proven streptavidin-coated Dynabeads® to isolate any cell type from any sample from any species for any downstream application. This tube-based method is quick, easy and very flexible.

- **Quick and easy**
- **Flexible system**
- **Reproducible**
- **Binds any biotinylated target**

Any cell type: use any biotinylated antibody...
Any species: human, mouse, rat, non-human primates...
Any sample: whole blood, bone marrow, tissue digests, spleen...
Any application: cells are ideal for culture, stimulation, DNA/RNA or protein purification, flow cytometry...

Whatever cell type you want to isolate, we have the product for you!

One system – no limits!

What you want to achieve from your isolation will decide which product is best for you:

- **Isolate untouched cells (negative isolation or depletion)**
  Label the cells with your own biotinylated antibody mix and then add Dynabeads® Biotin Binder to your starting sample to bind unwanted cell types. Use a handy Dynal magnet to pull the unwanted cells to the tube wall, leaving a high purity and yield of untouched, viable cells in the supernatant. Batch-to-batch variations (fig. 2) and donor variations (fig. 3) are minimal.

- **Isolate bead-free cells (positive isolation with detachment)**
  Use CELLection™ Biotin Binder with your own biotinylated antibody (direct or indirect technique) to bind your target cell type. Use a handy Dynal magnet to pull the target cells to the tube wall, leaving the unwanted cells in the supernatant. After isolation, the beads are detached from the cells by cleaving the DNase linker (reagent supplied).

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Fig. 1: The principle of cell isolation using Dynabeads® Biotin Binder (A) and CELLection™ Biotin Binder (A+B). Isolated target cells can only be detached from beads with CELLection™ Biotin Binder.

Fig. 2: Batch-to-batch variations. Depletion of human CD4+ T cells from MNC performed by direct technique with 5 different Dynabeads® Biotin Binder batches. The same batch of primary biotinylated CD4 antibody is used in all samples. The average depletion of CD4+ lymphocytes is 98.6% with standard deviation (SD) of ±0.2.

Fig. 3: Donor variations. Depletion of human CD4+ T cells from MNC of 8 different donors performed on 8 different days with the same Dynabeads® Biotin Binder batch. The average depletion of CD4+ lymphocytes is 98.6% with SD of ±0.5.
Here are some examples of how these products have been used in a variety of applications – the possibilities are endless!

**Human Virion and HIV-1 Infected Cell Enrichment**

**Human B Cells**

**Human Antigen-specific T Cells**

**Mouse Bone Marrow Cells**

**Mouse Lin⁺ Cells**

**Mouse Bone Marrow Cells**

**Mouse T Cells**

**Mouse NK Cells**

**Mouse CD8⁺ T Cells**

**Mouse T Cells from Lung**

**Mouse Synovial Tissue**

**Mouse Regulatory T Cells**

For flexible cell isolation choose Dynabeads® Biotin Binder or CELLection™ Biotin Binder - just add your own biotinylated antibody.

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