Abnova Human & Mouse CD3/CD28 ActiveBeads™

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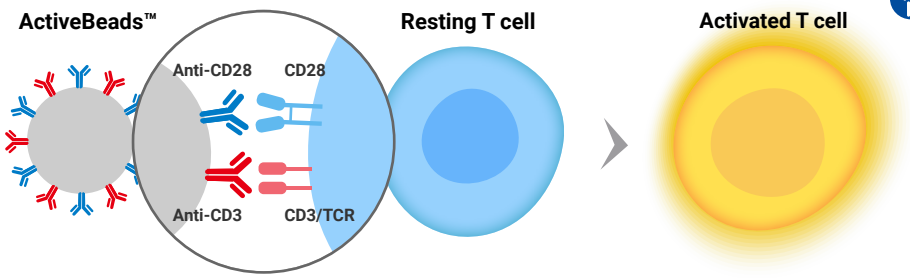


Signal 1 involves TCR binding to MHC presented antigen, followed by Signal 2 mediated by CD28 on T cell and CD80/CD86 co-stimulatory molecule on APC. Abnova provides CD3/CD28 ActiveBeads™ which replicate T cell activation process without APC involvement. These 4.5 µm ActiveBeads™ are valuable tools in both human and mouse T cell research, enabling immunologic and adoptive T cell studies in tumors, autoimmune diseases, and regulatory dysfunctions. Adoptive T cell immunotherapy has diverse applications in targeted therapies including Donor Lymphocyte Infusions (DLIs), Chimeric Antigen Receptor (CAR) T Cell Therapy, Tumor-Infiltrating Lymphocytes (TILs), and T-Cell Receptor (TCR)-Engineered T Cells. Abnova's Human CD3/CD28 ActiveBeads™ with humanized antibodies are suitable for immunodeficient xenograft tumor models. In contrast, Mouse CD3/CD28 ActiveBeads™ with anti-mouse antibodies are ideal for immunocompetent syngeneic tumor models to simulate the tumor microenvironment.

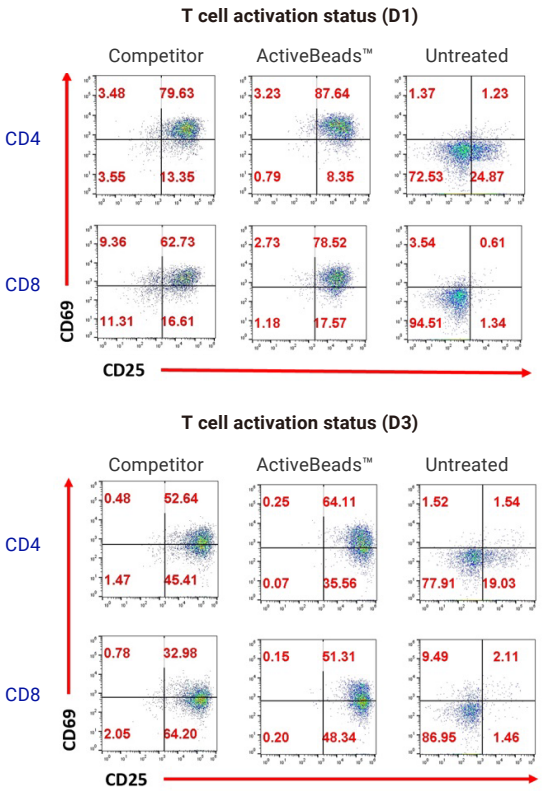
Advantages

- High Efficiency: Consistently achieving high rates of T-cell expansion.
- Contamination-Free: Using magnetic beads to support a clean process.
- Preserved Functionality: Maintaining activated T cells *in vivo*-like function.
- Long-term Utility: Activating and expanding T cells with Human or Mouse CD3/CD28 ActiveBeads™ for three days to several weeks.
- No Feeder Cell: Easily expanding T cells without feeder cells.

Human CD3/CD28 ActiveBeads™

Catalog # U0576
Cell Type: T Cells
Capacity: ≤ $1x10^8$ / enriched T cells or ≤ $2x10^8$ PBMCs
Reactivity: Human
Regulatory Status: For research use only (RUO)

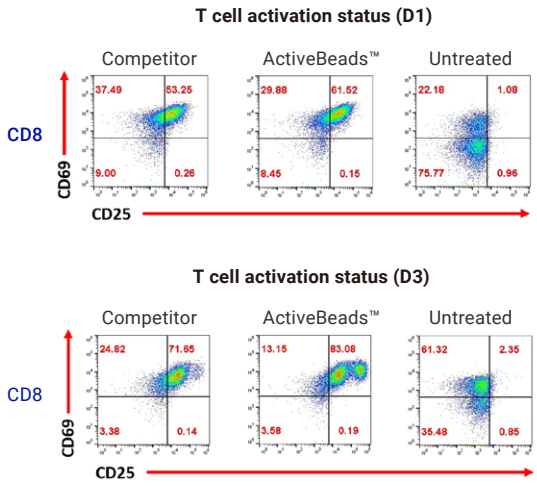
Stimulation



Mouse CD3/CD28 ActiveBeads™

Catalog # U0600
Cell Type: T Cells
Capacity: ≤ $2.5x10^8$ / enriched T cells or ≤ $6.25x10^8$ splenocytes
Reactivity: Mouse
Regulatory Status: For research use only (RUO)

Stimulation



Reference

1. Sudarsanam et al. (2022). Frontiers in Bioengineering and Biotechnology. doi: 10.3389/fbioe.2022.886637
2. Poltorak et al. (2020). Scientific Reports. doi: 10.1038/s41598-020-74595-8