Dynabeads® – The easy way to expand human Treg cells

- Quick and easy method
- No need for autologous antigen-presenting cells or antigen
- Expanded Treg cells retain suppressive phenotype and capacity
- Beads can be removed after stimulation

Expand your cells – limit your effort
Ready to use Dynabeads® Human Treg Expander is an innovative way to fully activate and expand human regulatory T cells in culture (1-3). Based on the proven technology used in the Dynabeads® CD3/CD28 T Cell Expander (4-7), the product provides simultaneous signals to TCR/CD3 and CD28.

Up to 100 fold expansion has been seen after 21 days. Even greater expansion has been achieved after re-stimulation, which involves changing the medium and adding fresh Dynabeads® when the cells show a reduced proliferation rate (fig. 1).

Reliable expansion of human CD4⁺CD25⁺ regulatory T cells without loss of characteristic phenotype and suppressive capacity is seen (figs. 2 and 3).

Dynabeads® can be easily detached from the expanded cells by pipetting. A magnet removes the Dynabeads® to leave bead- and antibody-free cells.

References

Ordering Information

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Fig. 1. Expansion of human Treg cells in 21 day cultures with Dynabeads® Human Treg Expander. 1000-fold expansion was obtained when the cultures were re-stimulated on day 8.

Fig. 2. Expanded cells retain the characteristic Treg cell phenotype.

Fig. 3. Expanded Treg cells suppress allo-reactive T cell responses in MLR-cultures.

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