

Application in immunology:

Cell separation in the context of immunological analysis

The analysis of the distribution and function of different cell types in the blood plays a central role in medical diagnostics and experimental cell research. For example, in determining the immune status of patients or the function of certain cell subtypes in inflammation or tumor defense. A prerequisite for this is the selective and gentle isolation of defined cell types. The HOKImag magnetic chamber system represents an ideal technology for the specific immunomagnetic selection of cells from patient blood, buffy coats, bone marrow and cell cultures.

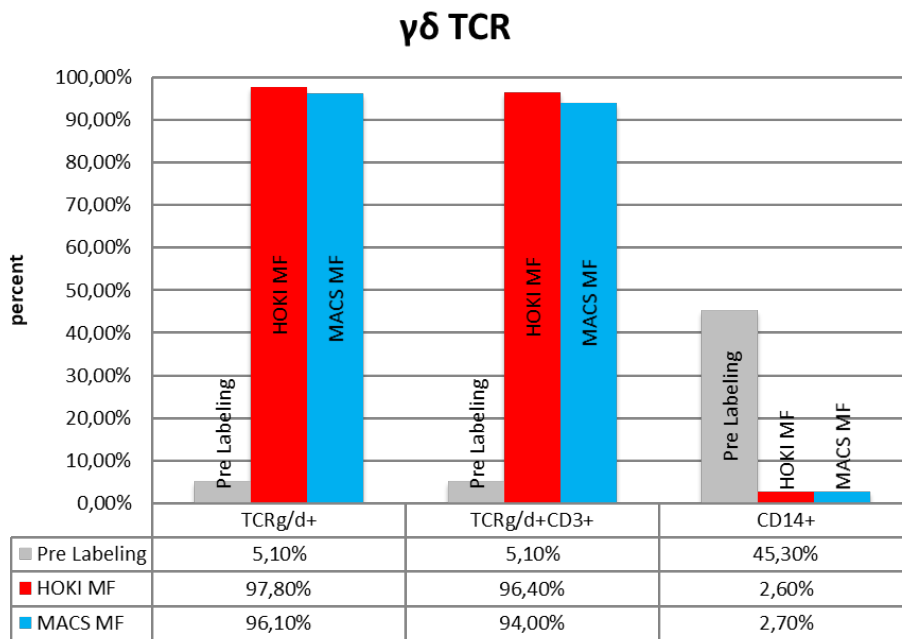
Advantages of the "Free-Flow" method with HOKImag:

The up to 3 Tesla strong inhomogeneous magnetic field inside the separation column allows the use of small amounts of very small superparamagnetic beads (50nm) to label cells via specific cell surface antigens. The small size of the magnetic particles and low concentration of the beads prevents non-specific activation or change in the status of the cells during isolation. The isolated cells are morphologically and functionally intact and can be expanded and analyzed as desired.

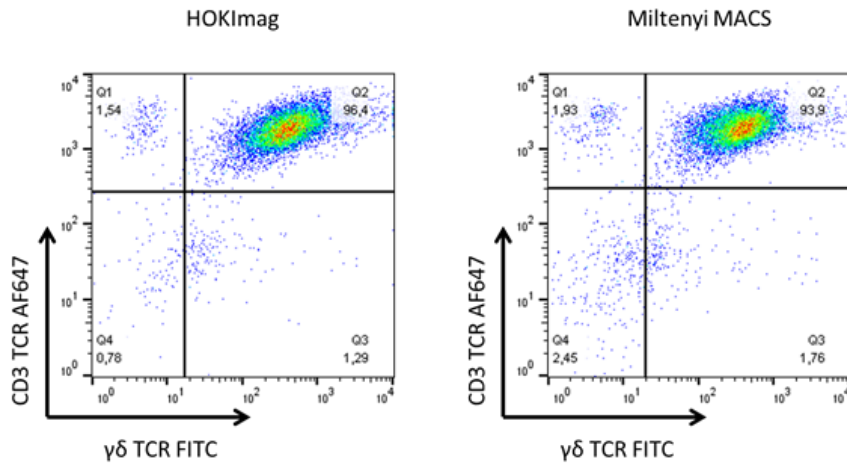
Examples of the application of the HOKImag magnetic chamber:

Isolation of $\gamma\delta$ T-cells

comparison of $\gamma\delta$ T-cell enrichment from patient blood using HOKImag and Miltenyi MACS (MF = magnetic fraction) columns



Purity of cells isolated with HOKImag and Miltenyi MACS



Viability of isolated cells after magnetic isolation with HOKImag

