

FAB^{ion}[®] CELL SELECTION REINVENTED

> 90% Purity
from whole blood



CELL SELECTION FROM WHOLE

FAB^{ION}[®]

FAB-BASED

IMMUNE AFFINITY CHROMATOGRAPHY

- fast –
- from whole blood –
- high yields –
- high purity –
- minimal cell activation –
- magnetic bead free –
- fully automatic –
- embedded system –
- label-free authentic target cells –
- no centrifugation –
- web-based programming –
- user independent –



THE SELECTION PROCESS OUTCOME: LABEL FREE, PU

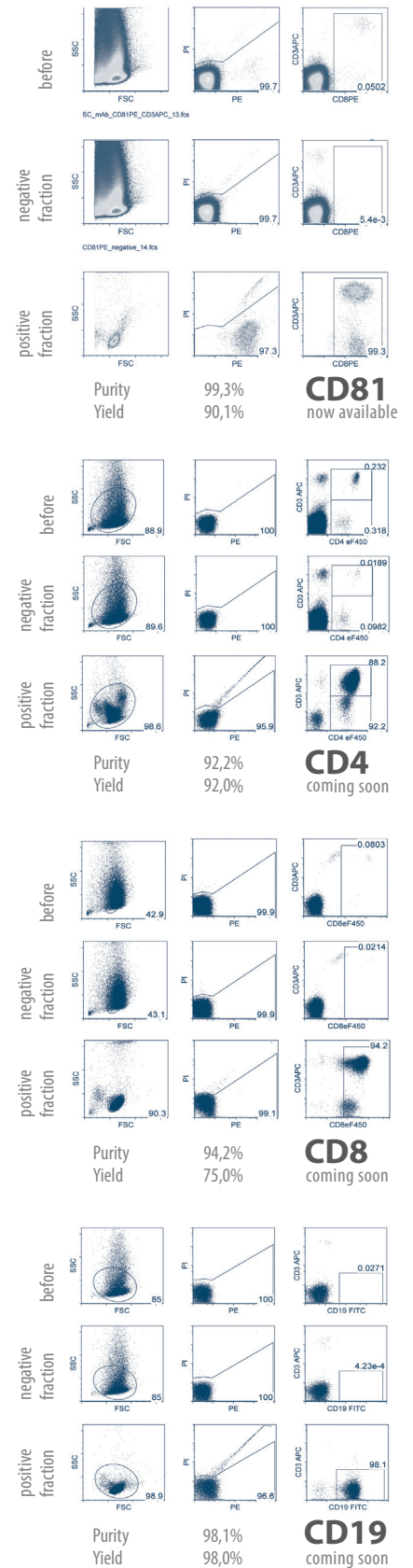
BLOOD MAGNETIC BEAD FREE

CELL SELECTION FROM WHOLE BLOOD

The FABian® cell selection process employs IBA's unique traceless cell-affinity chromatography (T-Catch™) technology for the automatic selection of specialized cell populations incl. T & B cells and other cell types.

The novel cell selection technology utilizes non-magnetic and fully reversible Strep-tagged Fab fragments targeting specific cell surface markers (e.g. CD81, CD3, CD4, CD8, CD14 and CD19).

FABian® quantitatively selects the cells of interest in high yields with high efficiency and purity from a suspension such as whole blood, buffy coat and other single-cell tissue suspensions. Due to the mild procedure to gain label-free target cells, serial positive cell selections are possible.



PURIFIED CELLS (E.G. PBMCS, T CELLS OR B CELLS) FROM WHOLE BLOOD

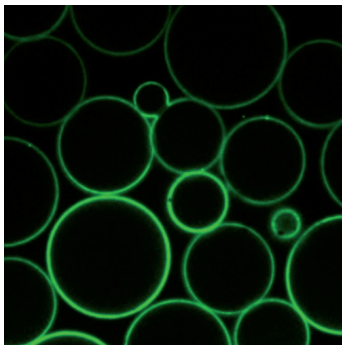
TECHNOLOGY

FABian® is equipped with a pre-made column filled with a Strep-Tactin® coated matrix and max. 11 tubes containing the required selection reagents.

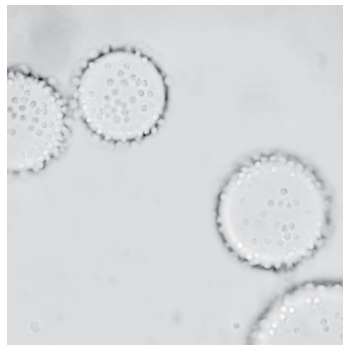
FABian® starts the automated cell selection process by adding a specific Strep-tagged Fab fragment to the matrix. Subsequently, FABian® passes whole blood or other single-cell suspensions through the column. Target cells bind to the matrix based on the binding specificity of the loaded Fab fragment and non-target cells are washed away.

In the final step, FABian® adds D-biotin to the column, which causes elution of the Strep-tagged Fab from the matrix as well as dissociation of the Fab fragments from the cell surface. The label-free authentic target cells are now selected in high yields and purity.

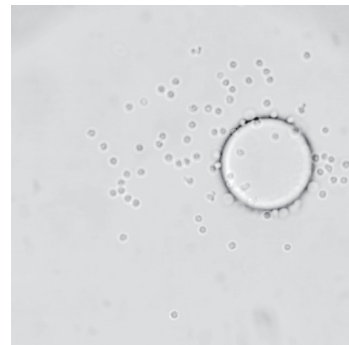
Remarkably, FABian® enables the selection of even small cell populations with high purity directly from whole blood.



matrix loaded with fluorescently labeled Strep-tagged Fab fragments



matrix loaded with target cells



after adding D-biotin: target cells are released from the matrix

SERVICES

IBA GmbH continuously expands its cell selection applications and provides fully customized services for Fab fragment developments. If you require specific Fabs for your cell selection application that are not available yet please contact us.

www.fabian-online.com

