Miltenyi Biotec

MACSprep™ Multiple Myeloma CD138 MicroBeads

Direct plasma cell isolation from bone marrow or whole blood

MACSprep Technology enables fast, gentle isolation of target cells from routine samples. Our Multiple Myeloma CD138 MicroBeads enriches CD138$^+$ plasma cells from anticoagulated blood or bone marrow with minimal handling, preserving cell integrity.

- **Direct cell isolation in 30 min**
- **No need for density gradient centrifugation**
- **No erythrocyte lysis**
- **Scalable automation with the autoMACS® NEO Separator**

▸ **miltenyibiotec.com/MACSprep**

Cell isolation solutions for routine cytogenetic analysis

Efficient enrichment of CD138⁺ plasma cells (PCs) is a prerequisite for valid cytogenetic analysis of bone marrow samples. Conventional methods for the isolation of CD138⁺ PCs requires laborious density gradient centrifugation and generation of mononuclear cells prior to any PC purification. In addition, recovery rates of PCs from mononuclear cells isolated by density gradient centrifugation are considerably lower compared to direct PC isolation from bone marrow (table 1).

Recovery rate of PCs	
Directly from bone marrow	95%
From bone marrow mononuclear cells (BMMC)	65%

Table 1: Recovery of CD138⁺ PCs after positive selection.

Effortless isolation of CD138⁺ PCs

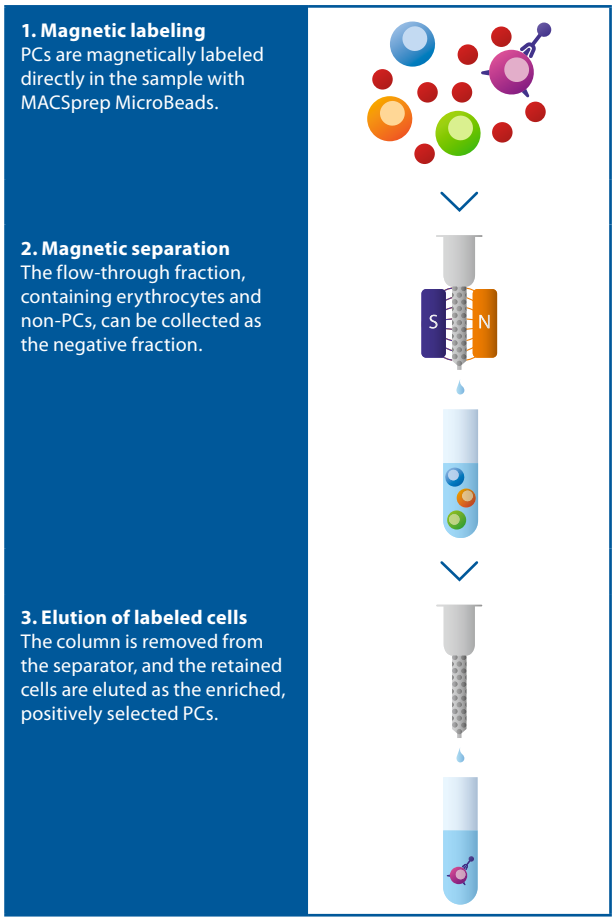

Figure 1: Three simple steps to isolate CD138⁺ cells from bone marrow or whole blood using the MACSprep Multiple Myeloma CD138 MicroBeads, human. This schematic overview shows the manual workflow using MACS Technology.

MACSprep Multiple Myeloma CD138 MicroBeads, human, in combination with our unique MACS® Cell Separation Technology, provide a simple and efficient solution for isolating CD138⁺ PCs directly from bone marrow or peripheral blood without the need for density gradient centrifugation or erythrocyte lysis (fig.1). The minimal manipulation of the sample preserves the integrity of CD138⁺ PCs, making them suitable for downstream cellular, cytogenetic, or molecular analysis of bone marrow or peripheral blood samples.

Automated solution for isolating CD138⁺ PCs

Combining MACSprep Multiple Myeloma CD138 MicroBeads, human, with a fully automated workflow enables fast and standardized cell isolation. This approach significantly increases the frequency of plasma cells compared to isolation without enrichment (fig.2). Automated cell isolation minimizes hands-on time, ensures reproducibility, and delivers highly pure cells.

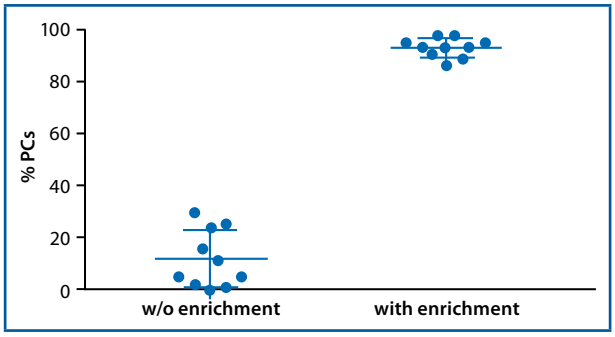

Figure 2: Frequency of CD138⁺ PCs before and after automated enrichment from bone marrow using MACSprep Multiple Myeloma CD138 MicroBeads, human. PCs were analyzed by flow cytometry. Each data point represents one individual bone marrow sample.

Product	Order no.
MACSprep Multiple Myeloma CD138 MicroBeads, human	130-111-744
autoMACS NEO Separator	130-120-327
MiniSampler S	130-123-093
Whole Blood Starting Kit	130-098-242

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