

Application of the 3R principles: Vertebrae as an additional source of murine bone marrow cells

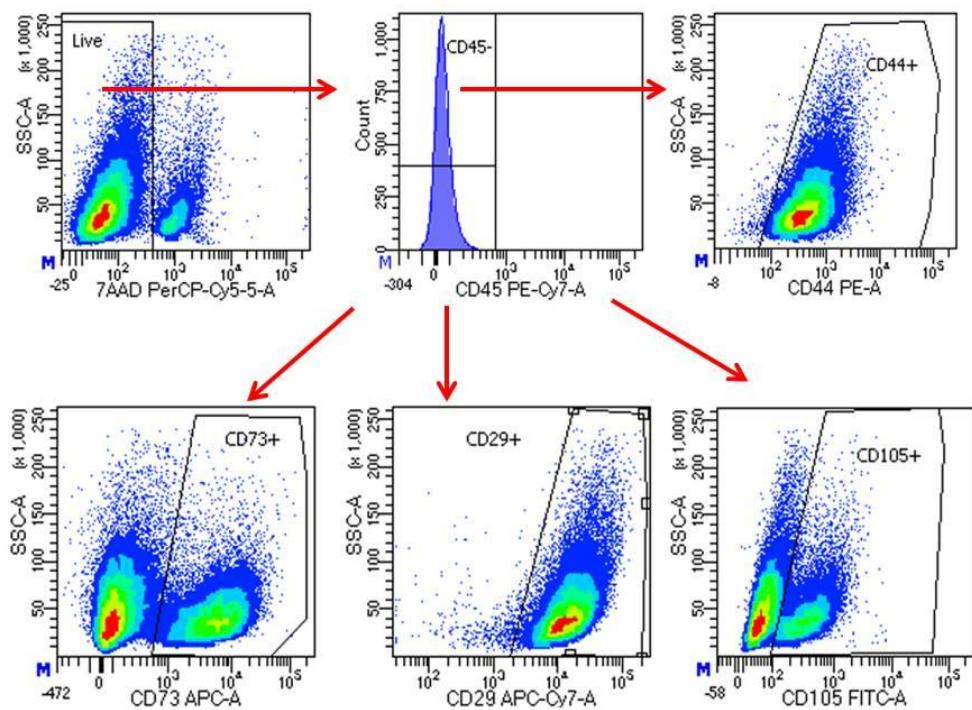
Supplementary material

Supplementary Table 1. Antibodies used for flow cytometry analysis of the expression of MSC surface markers.

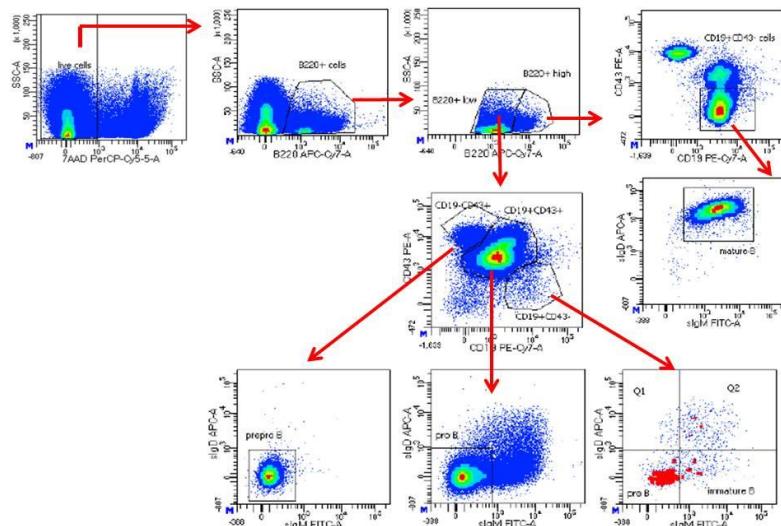
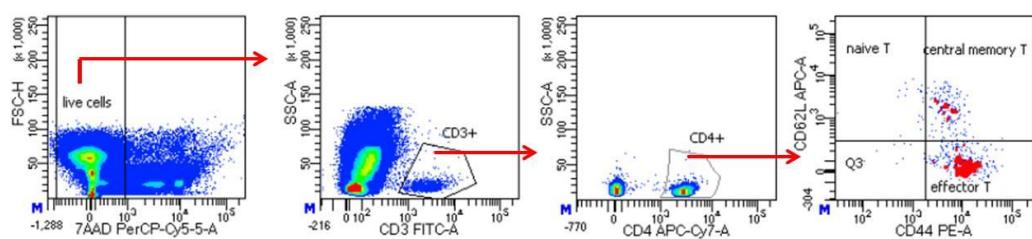
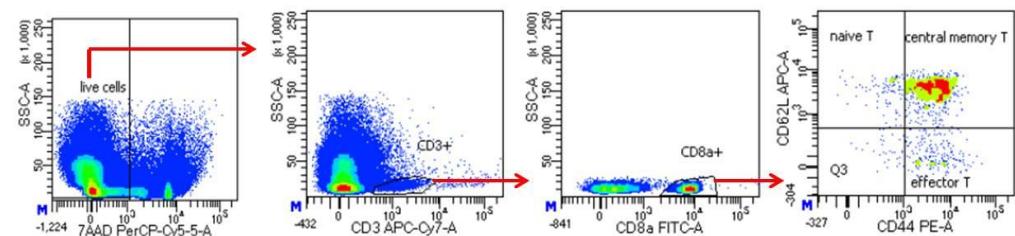
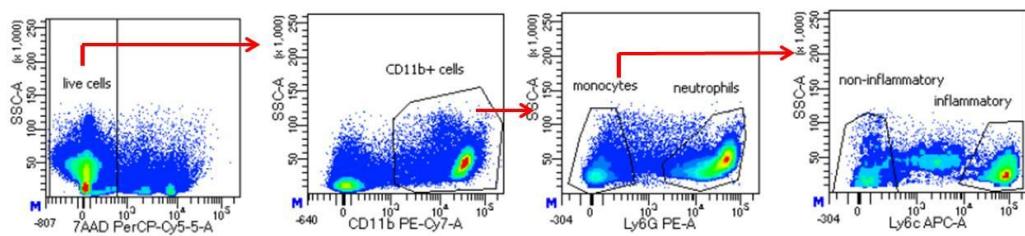
| Cells analyzed | Marker | Fluorochrome/channel | Isotype | Clone | Catalog no. | Supplier |
|---|--------|----------------------|--------------|---------|-------------|-----------------|
| Cultured mesenchymal stromal/stem cells | CD45 | PE-Vio770 | rat IgG2bk | 30F11 | 130-117-529 | Miltenyi Biotec |
| | CD44 | PE | rat IgG2bk | IM7.8.1 | 130-102-606 | Miltenyi Biotec |
| | CD29 | APC-Vio770 | hamster IgGλ | HMβ1-1 | 130-105-126 | Miltenyi Biotec |
| | CD73 | APC | rat IgG1κ | TY/11.8 | 130-102-586 | Miltenyi Biotec |
| | CD105 | VioBright 515 | rat IgG2ak | MJ7/18 | 130-110-304 | Miltenyi Biotec |
| | 7-AAD | PerCP-Cy5.5 | / | / | 130-111-568 | Miltenyi Biotec |

Supplementary Table 2. Antibodies used for flow cytometry analysis of immune cell populations.

| Cells analyzed | Marker | Fluorochrome/channel | Isotype | Clone | Catalog no. | Supplier |
|---|--------------|----------------------|----------------------------|-------------------|-------------|-----------------|
| B cells | B220/CD45R | APC-Vio770 | rat IgG2ak | RA3-6B2 | 130-102-267 | Miltenyi Biotec |
| | CD19 | PE-Vio770 | rat IgG2ak | 6D5 | 130-102-361 | Miltenyi Biotec |
| | CD43 | PE | rcomb. human IgG1 | REA364 | 130-105-338 | Miltenyi Biotec |
| | Membrane IgM | FITC | rat IgG2a | X-54 | 130-095-906 | Miltenyi Biotec |
| | Membrane IgD | APC | rat IgG2ak | 11-26c.2a | 130-102-445 | Miltenyi Biotec |
| | 7-AAD | PerCP-Cy5.5 | / | / | 130-111-568 | Miltenyi Biotec |
| Naïve, effector, central memory CD4 T cells | CD44 | PE | rat anti-mouse | IM7 | 51-9007324 | BD Biosciences |
| | CD4 | APC-Vio770 | rat IgG2bk | GK1.5 | 130-102-786 | Miltenyi Biotec |
| | CD62L | APC | rat anti-mouse | MEL-14 | 51-9007326 | BD Biosciences |
| | CD3 | FITC | rcomb. human IgG1 | REA641 | 130-109-836 | Miltenyi Biotec |
| | 7-AAD | PerCP-Cy5.5 | / | / | 130-111-568 | Miltenyi Biotec |
| | CD44 | PE | rat IgG2bk | IM7.8.1 | 130-102-606 | Miltenyi Biotec |
| Naïve, effector, central memory CD8 T cells | CD8 | FITC | rat, IgG _{2a} , κ | 53-6.7 | 553031 | BD Biosciences |
| | CD62L | APC | | MEL-14 | 51-9007326 | BD Biosciences |
| | CD3 | APC-Cy7 | rat, IgG 2b, κ | 17A2 | 560590 | BD Biosciences |
| | 7-AAD | PerCP-Cy5.5 | / | / | 130-111-568 | Miltenyi Biotec |
| | CD44 | PE | rat IgG2bk | IM7.8.1 | 130-102-606 | Miltenyi Biotec |
| Monocytes (inflammatory, non-inflammatory), neutrophils | Ly6G | PE | rat IgG2ak | 1A8 | 130-102-392 | Miltenyi Biotec |
| | Ly6C | APC | rat IgG2a | 1G7.G10 | 130-102-341 | Miltenyi Biotec |
| | CD11b | PE-Vio770 | rat IgG2bk | M1/70.15.1 1.5 | 130-099-704 | Miltenyi Biotec |
| | 7-AAD | PerCP-Cy5.5 | / | / | 130-111-568 | Miltenyi Biotec |



Supplementary figure 1. Flow cytometry analyses of MSCs. Gating strategy for immunophenotyping MSC cells. FSC/SSC graphs and exclusion of doublets are not shown.

A**B****C****D**

Supplementary figure 2. Flow cytometry analyses of immune cell populations: representative density plots and gating strategy for prepro B, pre B, pro B, immature and mature B cells. The percentages are calculated per B cells (B220+) (**A**). Representative density plots and gating strategy for central memory and effector CD4 T cells. The percentages are calculated per CD3+CD4+ T cells (**B**). Representative density plots and gating strategy for central memory and effector CD8 T cells. The percentages are calculated per CD3+CD8+T cells (**C**). Representative density plots and gating strategy for monocytes, neutrophils, inflammatory and non-inflammatory monocytes. Monocytes and neutrophils were calculated per live single cells and inflammatory and non-inflammatory monocytes were calculated per monocytes (CC11b+Ly6G-) (**D**). FSC/SSC graphs and exclusion of doublets are not shown.