

## PDCA1 Antibody-coupled magnetic MicroBeads

**Cat. No.** PDCA1-4903M    **Lot. No.** (See product label)

### SPECIFICATION

#### Product Overview

**Species**                      Mouse

**Capacity**                      for  $2 \times 10^9$  total cells

#### Background

The mouse plasmacytoid dendritic cell antigen-1 (mPDCA-1) is specifically expressed on mouse PDCs, a subset of CD11c<sup>+</sup> dendritic cells detected at low frequency in all lymphoid tissues, peripheral blood, and some non-lymphoid tissues. In mouse spleen, bone marrow, and lymph nodes, mPDCA-1 is exclusively expressed on cells which are CD11c<sup>low</sup>, CD45R (B220)<sup>+</sup>, Ly-6C<sup>high</sup>, MHC Class II<sup>low</sup>, CD8a<sup>low</sup>/-, CD80<sup>low</sup>/-, CD86<sup>-</sup>, CD40<sup>-</sup>, CD11b<sup>-</sup>, CD90<sup>-</sup>, CD49b (DX5)<sup>-</sup>, CD3<sup>-</sup>, CD19<sup>-</sup>, i.e. on cells with the phenotype of mouse PDCs. Multi-color fluorescent staining of spleen cells clearly revealed, that all CD11c<sup>+</sup> CD45R (B220)<sup>+</sup> Ly-6C<sup>+</sup> PDCs are mPDCA-1<sup>+</sup> and that mPDCA-1 expression is restricted to PDCs in non-treated mice.

#### Application

The isolated PDCs are suitable for studies on their functional properties, e.g. antigen uptake and presentation, crosspriming of cytotoxic T cells, T cell activation or tolerance induction, or T helper cell polarization by PDCs in experimental mouse models of infection and autoimmunity.

Highly pure PDCs were isolated with Anti-mPDCA-1 MicroBeads and have been further analyzed for IDO-dependent tolerance-induction.<sup>1</sup> Anti-mPDCA-1 MicroBeads have also been used to isolate PDCs for subsequent analysis of EBV-induced gene 3 (EBI3) expression and regulation in mouse DC subsets.

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