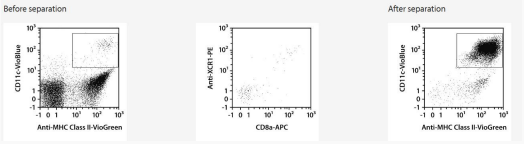
XCR1 Antibody-coupled magnetic MicroBeads

Cat. No. XCR1-5002M **Lot. No.** (See product label)

SPECIFICATION

Species	Mouse
Capacity	for 2×10^9 total cells
Background	Cross-presenting CD8+ conventional dendritic cells (cDCs) play a pivotal role in the induction of protective cytotoxic T lymphocyte (CTL) responses that are vital for the eradication of cancer and viral infections. In the past, studies of CD8+ cDCs have been hampered by their scarcity and the lack of specific cell surface markers. Therefore, methods for the detection and isolation of these cells were commonly based on a multitude of immunophenotypic criteria, including the expression of CD11c and CD8 and the absence of CD3, CD4, SIRP-α, and CD11b. Recently, it was demonstrated that cross-presenting cDCs in lymphoid and non-lymphoid tissues specifically express the two receptors Clec9-α and XCR1. The expression of the latter has been correlated with the ability to take up and cross-present exogenous antigens.
Application	Cross-presenting dendritic cells isolated with Anti-XCR1 MicroBead Kit (Spleen) can be used for antigen uptake and antigen processing assays, T cell activation or T cell tolerance induction, cross-priming of cytotoxic T cells, or T helper cell polarization.
Analysis	 XCR1+ dendritic cells (DCs) were isolated from spleen single-cell suspension using

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Anti-XCR1 MicroBead Kit (Spleen) with two MS Columns and a MiniMACS Separator. Cells were fluorescently stained with Anti-MHC Class II-VioGreen, CD11c-VioBlue, Anti-XCR1-PE and CD8a-APC and analyzed using the MACSQuant Analyzer 10.
Cell debris, dead cells, and autofluorescent cells were excluded from analysis based on scatters and propidium iodide fluorescence. Dot plots on the right show conventional DCs gated on CD11c+MHC class II+ cells, stained for cross-presenting DC markers (CD8a and XCR1).

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