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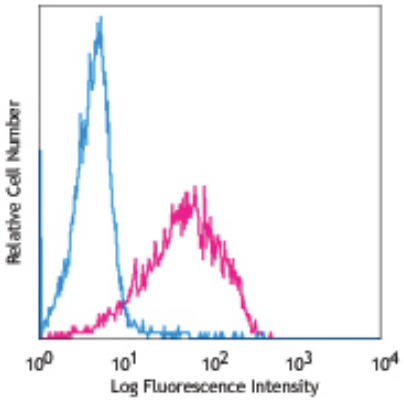
Product Data Sheet

Purified anti-human CD129 (IL-9 R)

Catalog # / Size: 310402 / 100 µg
Clone: AH9R7
Isotype: Mouse IgG2b, κ
Reactivity: Human
Preparation: The antibody was purified by affinity chromatography.
Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Concentration: 0.5 mg/ml
Storage: The antibody solution should be stored undiluted at 4°C.



HUT-78 (human T leukemia cell line) stained with purified AH9R7, followed by biotinylated anti-mouse IgG and Sav-PE

Applications:

Applications: FC - *Quality tested*
ELISA - *Reported in the literature*

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For immunofluorescent staining, the suggested use of this reagent is ≤ 0.5 µg per 10^6 cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.

Application Notes: Additional reported applications (for the relevant formats) include: inhibition the binding of IL-9 to the high affinity α -chain of the human IL-9 receptor[1,2], and ELISA for detection of soluble IL-9R. For most successful immunofluorescent staining results, it may be important to maximize signal over background by using a relatively bright fluorochrome-antibody conjugate (Cat. No. 310404) or by using a high sensitivity, three-layer staining technique (e.g., including a biotinylated anti-mouse IgG second step (Cat. No. 405303), followed by SAv-PE (Cat. No. 405204)). The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 310408).

Application References:
1. De Smedt M, *et al.* 2000. *J. Immunol.* 164:1761.
2. Pilette C, *et al.* 2002. *J. Immunol.* 168:4103.
3. Demoulin JB, *et al.*1996. *Mol. Cell. Biol.* 16 (9):4710.
4. Kearley J, *et al.* 2011. *Am J Respir Crit Care Med.* 83:183. PubMed.

Description: CD129 is known as the 57 kD IL-9 receptor. It is a member of the hematopoietin receptor superfamily. Although the α -chain of the receptor binds IL-9 with high affinity, interaction with the γ-chain (CD132) of the IL-2 receptor is required for signaling. The IL-9 receptor is expressed at low levels on eosinophils, mast cells, macrophages, B lymphocytes, T lymphocytes, and erythroid progenitors. IL-9 receptor binding initiates STAT activation required for the proliferative and anti-apoptotic effects of this cytokine. In humans, signals from the IL-9 receptor appear to be critical for intrathymic T cell development. IL-9 binding has been shown to increase IL-5 receptor expression and promote survival in human eosinophils.

Antigen References:
1. Demoulin JB, *et al.*1996. *Mol. Cell. Biol.* 16:4710.

Related Products:

Product	Clone	Application
APC Goat anti-mouse IgG (minimal x-reactivity)	Poly4053	FC
Biotin Goat anti-mouse IgG (minimal x-reactivity)	Poly4053	FC, ELISA, IHC, IF, WB
Purified Mouse IgG2b, κ Isotype Ctrl	MPC-11	FC, ICFC, ICC, IF, IHC, IP, WB
PE Goat anti-mouse IgG (minimal x-reactivity)	Poly4053	FC
PE Streptavidin		FC, ICFC
Cell Staining Buffer		FC, ICC, ICFC
RBC Lysis Buffer (10X)		FC, ICFC

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