Technical Data Sheet

Purified NA/LE Mouse anti-Human IL-9 Receptor Alpha (CD129)

Product Information

Material Number:	**563606**
Alternate Name:	CD129; Interleukin-9 receptor; IL-9R alpha chain; IL-9Rα
Size:	0.5 mg
Clone:	AH9R7
Immunogen:	Human IL9R Transfected Cell Line
Isotype:	Mouse IgG2b, κ
Reactivity:	QC Testing: Human
Storage Buffer:	No azide/low endotoxin: Aqueous buffered solution containing no preservative, 0.2μm sterile filtered. Endotoxin level is ≤0.01 EU/μg (≤0.001 ng/μg) of protein as determined by the LAL assay.

Description

The AH9R7 monoclonal antibody specifically binds to the Interleukin-9 Receptor (IL-9R, IL-9Rα) also known as CD129. CD129 is a Type I transmembrane glycoprotein and a Type I Cytokine Receptor (Hemopoietin) Superfamily member. The high-affinity, signaling IL-9 Receptor complex is comprised of CD129 (IL-9 Receptor alpha chain subunit) and CD132 (common γ chain/γc). CD129 is expressed by hematopoietic progenitors, thymocytes, T cells, B cells, macrophages, eosinophils, mast cells, epithelia cells, muscle cells and neurons. IL-9 signals through the IL-9R complex (ie, through JAK, STAT and related signal pathways) to regulate the growth, proliferation, differentiation and survival of myeloid and erythroid progenitor cells, thymocytes, T cells, B cells and some tumor cells.

Preparation and Storage

Store undiluted at 4°C.

This preparation contains no preservatives, thus it should be handled under aseptic conditions.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Application Notes

Application

Flow cytometry	Routinely Tested
Neutralization	Reported

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

De Smedt M, Verhasselt B, Kerre T, et al. Signals from the IL-9 receptor are critical for the early stages of human intrathymic T cell development. *J Immunol.* 2000; 164(4):1761-1767. (Clone-specific: Inhibition)

Demoulin JB, Uyttenhove C, Van Roost E, et al. A single tyrosine of the interleukin-9 (IL-9) receptor is required for STAT activation, antiapoptotic activity, and growth regulation by IL-9. *Mol Cell Biol.* 1996; 16(9):4710-4716. (Clone-specific: Flow cytometry, Immunoprecipitation)

Grasso L, Huang M, Sullivan CD, et al. Molecular analysis of human interleukin-9 receptor transcripts in peripheral blood mononuclear cells. Identification of a splice variant encoding for a nonfunctional cell surface receptor. *J Biol Chem.* 1998; 273(37):24016-24024. (Clone-specific: Flow cytometry, IC/FCM Block, Immunohistochemistry, Immunoprecipitation)

Pilette C, Ouadrhiri Y, Van Snick J, et al. IL-9 inhibits oxidative burst and TNF-alpha release in lipopolysaccharide-stimulated human monocytes through TGF-beta. *J Immunol.* 2002; 168(8):4103-4111. (Clone-specific: Flow cytometry, Inhibition)

Pilette C, Ouadrhiri Y, Van Snick J, et al. Oxidative burst in lipopolysaccharide-activated human alveolar macrophages is inhibited by interleukin-9. *Eur Respir J.* 2002; 20:1198-1205. (Clone-specific: Functional assay, Inhibition)

Wilhelm C, Turner JE, Van Snick J, Stockinger B. The many lives of IL-9: a question of survival?. *Nat Immunol.* 2012; 13(7):637-641. (Biology)

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