

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IL-9 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant rat IL-9 or recombinant mouse IL-9 is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 623153
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human IL-9 Gln19-Ile144 Accession # P15248
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

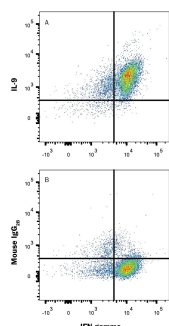
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Intracellular Staining by Flow Cytometry	2.5 µg/10 ⁶ cells	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA

Intracellular Staining by Flow Cytometry



Detection of IL-9 in Human PBMCs by Flow Cytometry. Human peripheral blood mononuclear cells (PBMCs) were treated with plate-bound anti-CD3 Monoclonal Antibody (5 µg/ml) and anti-CD28 Monoclonal Antibody (2 µg/ml), Recombinant Human IL-4 (Catalog # 204-IL, 10 ng/ml), and anti-Human IFN-γ Monoclonal Antibody (Catalog # AF-285-NA, 20 µg/ml) for 5 days and stained with (A) Mouse Anti-Human IL-9 Monoclonal Antibody (Catalog # MAB209) or (B) Mouse IgG_{2B} Isotype Control Antibody (Catalog # MAB0041) followed by Allophycocyanin-conjugated anti-Mouse IgG Secondary Antibody (Catalog # F0101B) and Mouse Anti-Human IFN-γ Phycoerythrin-conjugated Monoclonal Antibody (Catalog # IC285P). To facilitate intracellular staining, cells were fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with Flow Cytometry Permeabilization/Wash Buffer I (Catalog # FC005). Staining was performed using our Staining Intracellular Molecules protocol.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Interleukin-9 (IL-9) is a 14 kDa glycosylated cytokine that is secreted by CD4⁺ Th2 cells. It supports the growth of multiple hematopoietic cell types including Th cells, germinal center B cells, macrophages, mast cells, neutrophils, megakaryocytes, and erythrocytes. IL-9 exerts its biological effects through a receptor complex composed of IL-9 R and the common gamma chain. Mature human IL-9 shares 57% amino acid sequence identity with mouse and rat IL-9.