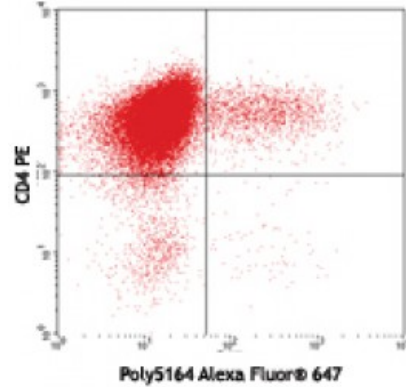


Alexa Fluor® 647 anti-mouse IL-22

Catalog # / Size: 3182030 / 100 tests
Clone: Poly5164
Isotype: Goat IgG
Immunogen: Mouse IL-22, amino acids Leu34-Val179 (Accession# NM_016971), was expressed in *E. coli*.
Reactivity: Mouse
Preparation: The antibody was purified by affinity chromatography, and conjugated with Alexa Fluor® 647 under optimal conditions.
Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).
Concentration: Lot-specific



PMA/ionomycin-stimulated (5 hours) Th17 polarized CD4+ T cells (day 3) from C57BL/6 mouse lymph nodes surface stained with mouse CD4 (GK1.5) PE, then intracellular stained with Poly5164 Alexa Fluor® 647.

Applications:

Applications: Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by intracellular immunofluorescent staining with flow cytometric analysis. **Test size products are transitioning from 20 microL to 5 microL per test.** Please check your vial or your CoA to find the suggested use of this reagent per million cells in 100 microL staining volume or per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

Application Notes: **ELISA Capture:** The purified Poly5164 antibody is useful as a capture antibody in a sandwich ELISA assay, when used in conjunction with the biotinylated Poly5164 antibody (Cat. No. 516407) as the detecting antibody and recombinant mouse IL-22 (Cat. No. 576209) as the standard.

In sandwich ELISA, Poly5164 has approximately 17% and 2% cross-reactivity with recombinant rat and human IL-22, respectively.

Flow Cytometry: The fluorochrome-labeled Poly5164 antibody is useful for immunofluorescent staining and flow cytometric analysis to identify IL-22-producing cells within mixed cell populations.

Note: For testing mouse IL-22 in serum, plasma or supernatant, LEGEND MAX™ Mouse IL-22 ELISA Kit (Cat. No. 436307 & 436308) is specially developed and recommended.

Note: The use of Iscove's Modified Dulbecco's Medium (IMDM) will result in better *in vitro* Th17 polarization.¹

Application References: 1. Veldhoen M, *et al.* 2009. *J. Exp. Med.* 206:43.

Description: IL-22 is a cytokine structurally related to IL-10. Mouse IL-22 consists of 179 amino acids and has a predicted molecular weight of 20 kD. It is secreted primarily by Th17, Th1, Th2, lymphoid tissue inducer cells (LTi), and subsets of natural killer cells. It has been reported that aryl hydrocarbon receptor (AhR) expression is essential for the production of IL-22 by TCR $\gamma\delta$ T cells. AhR activation increases Th17 polarization and induces IL-22 production. IL-22 functions by engaging the heterodimeric IL-22 receptor (IL-22R) complex, consisting of two receptor subunits, IL-22R1 and IL-10R β . IL-22 acts on nonhematopoietic tissue cells, such as epithelial cells of the digestive and respiratory systems and keratinocytes of the skin. IL-22 is involved in inflammatory processes such as dermal inflammation, psoriasis, inflammatory bowel disease, hepatitis, and Crohn's disease. Moreover, it plays a critical role in mucosal immunity and the wound healing process.

Antigen
References:

1. Martin B, *et al.* 2009. *Immunity* 31:321.
2. Liang SC, *et al.* 2006. *J. Exp. Med.* 203:2271.
3. Veldhoen M, *et al.* 2008. *J. Exp. Med.* 206:43.
4. Zheng Y, *et a*