

Monoclonal Anti-mouse IL-22 R α 1-Phycoerythrin

Catalog Number: FAB42941P

Lot Number: ABFZ02

100 Tests

Reagents Provided

Phycoerythrin (PE)-conjugated rat monoclonal anti-mouse

IL-22 R α 1: Supplied as 25 μ g of antibody in 1 mL saline containing up to 0.5% BSA and 0.1% sodium azide.

Clone #: 496514

Isotype: rat IgG_{2A}

Reagents Not Provided

- Flow Cytometry Staining Buffer (Catalog # FC001) or other BSA-supplemented saline buffer.

Storage

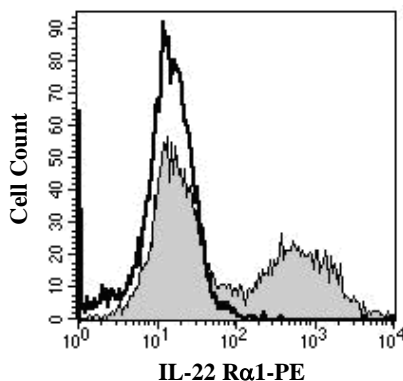
Reagents are stable for **twelve months** from the date of receipt when stored in the dark at 2° - 8° C.

Intended Use

Designed to quantitatively determine the percentage of cells bearing IL-22 R α 1 within a population and qualitatively determine the density of IL-22 R α 1 on cell surfaces by flow cytometry.

Product Description

This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a rat immunized with purified, CHO-derived, recombinant mouse Interleukin 22 Receptor alpha 1 extracellular domain (rmIL-22 R α 1; aa 18 - 228; Accession # CQ88915). The IgG fraction of the tissue culture supernatant was purified by Protein G affinity chromatography. The purified antibody was then conjugated to PE fluorochrome. Cell surface expression of IL-22 R α 1 is determined by flow cytometry using 488 nm wavelength excitation and monitoring emitted fluorescence with a detector optimized to collect peak emissions at 565 - 605 nm.



Hepa 1-6 cells were stained with PE-conjugated anti-mouse IL-22 R α 1 (Catalog # FAB42941P, filled histogram) or PE-conjugated isotype control (Catalog # IC006P, open histogram).

Background Information

The interleukin-22 receptor α 1 (IL-22 R α 1), also known as CRF2-9, is a 557 amino acid (aa), ~65 kDa type I transmembrane protein of the type II cytokine receptor family (CRF). IL-22 R α 1 forms an IL-22 signaling complex with IL-10 R β /CRF2-4 on epithelial and stromal cells. IL-22 engagement of the signaling complex stimulates antimicrobial, acute phase and proinflammatory protein expression. IL-22 R α 1 also pairs with IL-20 R β to form a receptor that is responsive to IL-20 and IL-24. Within the 211 aa extracellular domain, mouse IL-22 R α 1 shares 78% and 94% aa sequence identity with human and rat IL-22 R α 1, respectively.

Flow Cytometry Validation

This antibody has been tested for flow cytometry Hepa 1 - 6 cells.

- Cells may be Fc-blocked with 1 μ g of mouse IgG/10⁵ cells for 15 minutes at room temperature. Do not wash excess blocking IgG from this reaction.
- After blocking, 10 μ L of conjugated antibody was added to up to 1 x 10⁶ cells and incubated for 30 minutes at room temperature.
- Unbound antibody was removed by washing the cells twice in Flow Cytometry Staining Buffer (Catalog # FC001). Note that whole blood requires a RBC lysis step at this point using Flow Cytometry Mouse Lyse Buffer (Catalog # FC003).
- The cells were resuspended in Flow Cytometry Staining Buffer for final flow cytometric analysis. As a control for this analysis, cells in a separate tube should be treated with PE-labeled rat IgG_{2A} antibody. This procedure may need to be modified, depending upon the cell type and final utilization. Individual users may need to titrate to determine the optimal reagent amount for their specific use.

Warning: Contains sodium azide as a preservative - sodium azide may react with lead and copper plumbing to form explosive metal azides. Flush with large volumes of water during disposal.

FOR RESEARCH USE ONLY. NOT FOR USE IN HUMANS.

R&D Systems Inc.
1-800-343-7475