

# Monoclonal Anti-mouse IL-10 R $\beta$ -APC

Catalog Number: FAB53681A

Lot Number: ABHR02

100 Tests

## Reagents Provided

### Allophycocyanin (APC)-conjugated rat monoclonal anti-mouse

**IL-10 R $\beta$ :** Supplied as 25  $\mu$ g of antibody in 1 mL saline containing up to 0.5% BSA and 0.1% sodium azide.

**Clone #:** 547324

**Isotype:** rat IgG<sub>2A</sub>

## Reagents Not Provided

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

## Storage

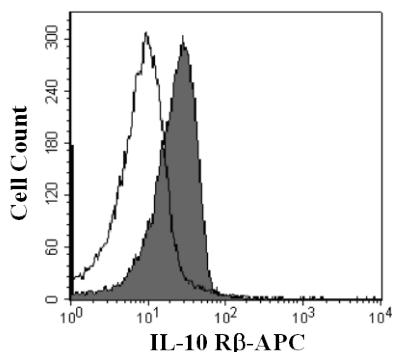
Reagents are stable for **twelve months** from date of receipt when stored in the dark at 2° - 8° C.

## Intended Use

Designed to quantitatively determine the percentage of cells bearing IL-10 R $\beta$  within a population and qualitatively determine the density of IL-10 R $\beta$  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, NS0-derived, recombinant mouse Interleukin 10 Receptor beta extracellular domain (rhIL-10 R $\beta$ ; aa 21 - 220; Accession # Q61190). The IgG fraction of the tissue culture supernatant was purified by Protein G affinity chromatography. The purified antibody was then conjugated to APC fluorochrome. Cell surface expression of IL-10 R $\beta$  is determined by flow cytometry using 620 - 650 nm wavelength excitation and monitoring emitted fluorescence with a detector optimized to collect peak emissions at 660 - 670 nm.



EL-4/IL-2 cells were stained with APC-conjugated anti-mouse IL-10 R $\beta$  (Catalog # FAB53681A, filled histogram) or APC-conjugated isotype control (Catalog # IC006A, open histogram).

## Background Information

IL-10 R $\beta$  (Interleukin 10 receptor beta; also IL-10 R2, CD210b and CRF2-4) is an 80 - 85 kDa member of the type II cytokine receptor family of proteins. It is very widely expressed, and serves as a signal-transducing accessory chain when complexed to the ligand-binding chains for IL-10, -22, -28A, -28B and -29 (plus IL-26 in human). Mature mouse IL-10 R $\beta$  is a type I transmembrane protein that is 330 amino acids (aa) in length. It contains a 201 aa extracellular domain (aa 20 - 220) that possesses two fibronectin type III domains (aa 22 - 107 and 111 - 208). There is one alternate start site at Met20. Over aa 21 - 220, mouse IL-10 R $\beta$  shares 87% and 74% aa identity with rat and human IL-10 R $\beta$ , respectively.

## Flow Cytometry Validation

This antibody has been tested for flow cytometry using EL-4/IL-2 cells.

- Cells may be Fc-blocked with 1  $\mu$ g of mouse IgG/10<sup>5</sup> cells for 15 minutes at room temperature. Do not wash excess blocking IgG from this reaction.
- After blocking, 10  $\mu$ L of conjugated antibody was added to up to 1 x 10<sup>6</sup> 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 analysis, cells in a separate tube should be treated with APC-labeled rat IgG<sub>2A</sub> antibody. This procedure may need to be modified, depending upon cell type and final utilization. Individual users may need to titrate to determine 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.