Human IL-23 R PE-conjugated Antibody
Monoclonal Mouse IgG2B Clone # 218213
Catalog Number: FAB14001P
100 Tests, 25 Tests

DESCRIPTION

Species Reactivity  Human
Specificity  Detects human IL-23 R in direct ELISAs and Western blots. Does not cross-react with recombinant mouse (rm) IL-23 R.
Source  Monoclonal Mouse IgG2B Clone # 218213
Purification  Protein A or G purified from hybridoma culture supernatant
Immunogen  Mouse myeloma cell line NS0-derived recombinant human IL-23 R
Gly24-Ile354
Accession # Q5VWK5
Conjugate  Phycoerythrin
Excitation Wavelength: 488 nm
Emission Wavelength: 565-605 nm

Formulation  Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.

*Contains ≤0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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
Flow Cytometry  10 µL/10^6 cells  See Below

DATA

Flow Cytometry

Detection of IL-23 R in Human PBMCs by Flow Cytometry.
Human peripheral blood mononuclear cells (PBMCs) treated with 50 ng/mL PMA, 200 ng/mL Calcium ionophycin, 200 ng/mL LPS, 20 ng/mL Recombinant Human-IL-23 (Catalog # 1290-IL), and 40 ng/mL Recombinant Human IL-6 (Catalog # 206-IL) overnight to induce Th17 development were stained with Mouse Anti-Human CD4 APC-conjugated Monoclonal Antibody (Catalog # FAB3791A), and either (A) Mouse Anti-Human IL-23 R PE-conjugated Monoclonal Antibody (Catalog # FAB14001F) or (B) Mouse IgG2B, Phycoerythrin Isotype Control (Catalog # IC0041P). View our protocol for Staining Membrane-associated Proteins.

PREPARATION AND STORAGE

Shipping  The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage  Protect from light. Do not freeze.
  - 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

Interleukin 23 (IL-23) is a heterodimeric cytokine composed of two disulfide-linked subunits, a p19 subunit that is unique to IL-23, and a p40 subunit that is shared with IL-12 (1 - 5). The functional IL-23 receptor complex consists of two receptor subunits, the IL-12 receptor beta 1 subunit (IL-12 Rβ1) and the IL-23-specific receptor subunit (IL-23 R) (3). Human IL-23 R cDNA encodes a 629 aa type I transmembrane protein with a 23 aa residue signal peptide, a 330 aa residue extracellular domain, a 23 aa residue transmembrane domain and a 253 aa residue cytoplasmic region. IL-23 R lacks the three extracellular membrane-proximal fibronectin-type III domains present on IL-12 Rβ2. IL-23 R has a WQPWS sequence in the transmembrane-proximal cytokine receptor domain similar to the cytokine receptor signature WSXWS motif. The cytoplasmic region of IL-23 R has three potential Src homology 2 domain-binding sites and two potential Stat-binding sites. The gene for human IL-23 R is located on human chromosome 1 within 150 kb of IL-12 Rβ2. Human and mouse IL-23 R share 68% amino acid sequence identity. Based on quantitative real-time PCR, human IL-23 R mRNA is expressed in a human Th1 and Th0 clone as well as several NK cell lines and clones. Low but detectable levels of IL-23 R mRNA is also expressed in EBV-transformed B cells and activated PBMC. IL-23 initiates a signal transduction cascade similar to that of IL-12, and involves Jak2, Tyk2, Stat1, Stat3, Stat4, and Stat5. IL-23 has biological activities that are similar to, but distinct from IL-12.

References:

Rev. 2/8/2018 Page 1 of 2
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