Human IL-17 RC PE-conjugated Antibody

Monoclonal Mouse IgG_{2B} Clone # 309822

Catalog Number: FAB22691P

100 TESTS

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IL-17 RC in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human (rh) IL−17 R, rhIL-17 BR, rhIL-17 RD, or recombinant mouse IL-17 RC is observed.
Source	Monoclonal Mouse IgG_{2B} Clone # 309822
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human IL−17 RC Leu21-Ala454 Accession # NP_116121
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.

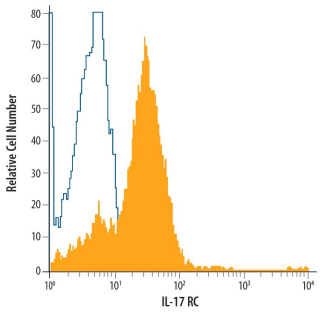
APPLICATIONS

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-17 RC in PC-3 Human Cell Line by Flow Cytometry. PC-3 human prostate cancer cell line was stained with Mouse Anti-Human IL-17 RC PE-conjugated Monoclonal Antibody (Catalog # FAB22691P, filled histogram) or isotype control antibody (Catalog # IC0041P, open histogram). 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.

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BACKGROUND

IL-17 receptor C (IL-17 RC; also known as IL-17 RL and IL-17 Rhom) is an 85–110 kDa member of the IL-17 receptor family. This is one of five families that currently comprise the cytokine receptor superfamily (1, 2, 3, 4, 5, 6). At this time, there are five members within the IL-17 receptor family, and these are termed IL-17 RA, B, C, D and E. Not all receptors appear to bind known members of the IL-17 cytokine family. To date, IL-17 RA is reported to bind IL-17(A), while IL-17 RB is reported to bind IL-17B and IL-17E (2, 4). Human IL-17 RC is a type I transmembrane glycoprotein that is expressed on a variety of nonhematopoietic cell types. These include endothelial cells (6, 7), chondrocytes and osteoblasts (8), breast and prostatic epithelium (6), and fibroblasts, plus renal tubular epithelium and skeletal muscle cells (8, 9). Full-length IL-17 RC is synthesized as a 791 amino acid (aa) precursor (10, 11). It contains a 20 aa signal sequence, a 518 aa extracellular domain (ECD) (aa 21–538), a 21 aa transmembrane segment, and a 232 aa cytoplasmic region. Although IL-17 RA has two fibrinogen-like regions in its ECD that contribute to its function, no such architecture has been identified in the ECD of IL-17 RC (12). Based on studies looking at exon deletions, a key ligand-binding site would appear to exist over aa 425–441 (13). The gene for human IL-17 RC contains 19 exons. It is estimated that there are over 90 alternative splice forms, with transmembrane-containing isoforms predominating (6, 14). The full-length isoform is estimated to occur approximately 10% of the time, while the three most common isoforms, as a group, occur about 50% of the time. Based on limited information, alternative splicing appears to regulate ligand specificity (13). R&D Systems IL-17 RC corresponds to IL-17 RC isoform # 3, which shows deletions of aa 36–106 and 264–278 relative to the full-length form (10). Over the ECD, IL-17 RC isoform #3 is 68% aa identical to mouse IL-17 RC ECD. IL-17 RC is the cognate receptor for IL-17F, and binds IL-17A with similar affinity (13). With IL-17 RA, it forms a definitive receptor for both IL-17A and IL-17F. The stoichiometry is unclear; it may form a heterodimer with IL-17 RA, or a heterotrimer with a preexisting IL-17 RA homodimer (4, 9, 13, 15). The heteromeric nature of the receptor may be important given that the predominant form of the IL-17 cytokine is now considered to be an IL-17A:IL-17F heterodimer (4).

References:

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