Human IL-1β/IL-1F2 PE-conjugated Antibody

Monoclonal Mouse IgG_1 Clone # 8516

Catalog Number: IC201P

100 TESTS

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IL-1β/IL-1F2 in Western blots. Shows less than 5% cross-reactivity with recombinant mouse (rm) IL−1β and recombinant porcine IL−1β and no cross-reactivity with recombinant rat (rr) IL−1β, rmIL−1α, recombinant human IL−1ra, rmIL−1ra, or rrIL−1α.
Source	Monoclonal Mouse IgG_1 Clone # 8516
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant human IL-1β/IL-1F2 aa 117-269 Accession # P01584
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.

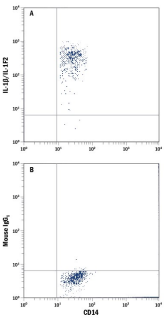
APPLICATIONS

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
Intracellular Staining by Flow Cytometry	10 µL/10^6 cells	See Below

DATA

Intracellular Staining by Flow Cytometry



Detection of IL-1β/IL-1F2 in Human Blood Monocytes by Flow Cytometry. Human peripheral blood monocytes stimulated with LPS were stained with Mouse Anti-Human CD14 Fluorescein-conjugated Monoclonal Antibody (Catalog # FAB3832F) and either (A) Mouse Anti-Human IL-1β/IL-1F2 PE-conjugated Monoclonal Antibody (Catalog # IC201P) or (B) Mouse IgG_1 Phycoerythrin Isotype Control (Catalog # IC002P). To facilitate intracellular staining, cells were fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with Flow Cytometry Permeabilization/Wash Buffer I (Catalog # FC005). View our protocol for Staining Intracellular Molecules.

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-1 is a name that designates two pleiotropic cytokines, IL-1α (IL-1F1) and IL-1β (IL-1F2), which are the products of distinct genes. IL-1α and IL-1β are structurally related polypeptides that share approximately 21% amino acid (aa) identity in human. Both proteins are produced by a wide variety of cells in response to inflammatory agents, infections, or microbial endotoxins. While IL-1α and IL-1β are regulated independently, they bind to the same receptor and exert identical biological effects. IL-1 RI binds directly to IL-1α or IL-1β and then associates with IL-1 R accessory protein (IL-1 R3/IL-1 R AcP) to form a high-affinity receptor complex that is competent for signal transduction. IL-1 RII has high affinity for IL-1β but functions as a decoy receptor and negative regulator of IL-1β activity. IL-1ra functions as a competitive antagonist by preventing IL-1α and IL-1β from interacting with IL-1 RI (1 - 4). The human IL-1β cDNA encodes a 269 aa precursor. A 116 aa propeptide is cleaved intracellularly by the cysteine protease IL-1β-converting enzyme (Caspase-1/ICE) to generate the active cytokine (5-7). The 17 kDa mature human IL-1β shares 96% aa sequence identity with rhesus and 67-78% with canine, cotton rat, equine, feline, mouse, porcine, and rat IL-1β.

References:

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