Human IL-1β/IL-1F2 Antibody

Recombinant Monoclonal Rabbit IgG Clone # 1027B
Catalog Number: MAB8406

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IL-1β/IL-1F2 in direct ELISAs.
Source	Recombinant Monoclonal Rabbit IgG Clone # 1027B
Purification	Protein A or G purified from cell culture supernatant
Immunogen	*E.coli*-derived recombinant human IL-1β/IL-1F2 Ala117-Ser269 Accession # P01584
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

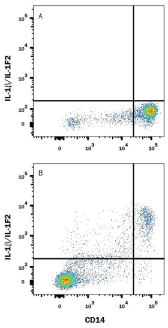
APPLICATIONS

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	0.25 µg/10^6 cells	See Below

DATA

Intracellular Staining by Flow Cytometry



Detection of IL-1 beta / IL-1F2 in Human blood monocytes by Flow Cytometry. Human peripheral blood monocytes, either (A) untreated, or (B) treated with 500 ng/mL LPS overnight, were stained with Rabbit anti-Human IL-1 beta/IL-1F2 Monoclonal Antibody (Catalog # MAB8406) followed by APC-conjugated anti-Rabbit IgG secondary antibody (Catalog # F0111) and Mouse anti-Human CD14 PE-conjugated Monoclonal Antibody (Catalog # FAB3832P). Quadrant markers were set based on isotype control antibody staining (Catalog # MAB1050, data not shown). 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

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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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