APC Mouse Anti-Human CD126

Product Information
Material Number: 562090
Alternate Name: Interleukin 6 receptor alpha chain; IL-6R alpha; IL-6Ra
Size: 50 tests
Vol. per Test: 5 µl
Clone: M5
Immunogen: Mixture of U266, XG-1, and BWD41 cells
Isotype: Mouse IgG1, κ
Reactivity: QC Testing: Human
Workshop: VI C63
Storage Buffer: Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description
The M5 monoclonal antibody specifically binds to human CD126 which is also known as the alpha subunit of the human IL-6 Receptor (IL-6Ra). The human IL-6Ra is an 80 kDa type I transmembrane glycoprotein, also known as B cell stimulatory factor-2 (BSF-2) receptor and IL-6 receptor. The IL-6Ra subunit associates with the 130-160 kDa gp130 subunit (IL-6 receptor β chain, CD130), that is shared with the receptors for Leukemia Inhibitory Factor (LIF), Ciliary Neurotropic Factor (CNTF), Oncostatin M (OSM), IL-11, Cardiotropin 1 (CT-1) and possibly Neurotrophin-1/B Cell-Stimulating Factor 3 (NNT-1/BSF-3). The IL-6Ra chain binds IL-6 with low affinity, however the association with CD130 stabilizes the IL-6/IL-6Ra complex resulting in the formation of a high affinity complex. The IL-6R β chain mediates signal transduction. IL-6Rα's are expressed at high levels by activated and EBV-transformed B cells, plasma cells and myeloma cells and at lower levels by most leucocytes, epithelial cells, fibroblasts, hepatocytes and neural cells. IL-6Ra exists in soluble form in human serum. The serum levels of soluble IL-6Ra appear to elevate in pathological situations such as multiple myeloma, Grave's disease, juvenile chronic arthritis and HIV. The immunogen used to generate the M5 hybridoma was a mixture of U266, XG-1 (human myeloma cell line expressing membrane IL-6R) and BWD41 cells (murine thymoma cell line expressing membrane IL-6R).

Flow cytometric analysis of CD126 expression on human peripheral blood lymphocytes. Whole blood was stained with either APC Mouse Anti-Human CD126 antibody (Cat. No. 562090; solid line histogram) or with an APC Mouse IgG1, κ Isotype Control (Cat. No. 555751; dashed line histogram). The erythrocytes were lysed with BD PharmLyse™ Lysing Buffer (Cat. No. 555899). The fluorescence histograms were derived from events with the forward and side light-scatter characteristics of viable lymphocytes. Flow cytometry was performed using a BD™ LSR II Flow Cytometer System.

Preparation and Storage
Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze. The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. The antibody was conjugated to APC under optimum conditions, and unconjugated antibody and free APC were removed.

Application Notes
Application
Flow cytometry Routinely Tested

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Suggested Companion Products

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<td>Stain Buffer (FBS)</td>
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Product Notices
1. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
2. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1 × 10^6 cells in a 100-µl experimental sample (a test).
3. An isotype control should be used at the same concentration as the antibody of interest.
5. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
6. This APC-conjugated reagent can be used in any flow cytometer equipped with a dye, HeNe, or red diode laser.
7. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.

References


