Technical Data Sheet

APC Mouse Anti-Human CD126

Product Information

Material Number: 562090
Alternate Name: Interleukin 6 Receptor alpha chain; IL-6R alpha; IL-6Rα
Size: 50 Tests
Vol. per Test: 5 µl
Clone: M5
Immunogen: CD126 Recombinant Protein
Isotype: Mouse (BALB/c) IgG1, κ
QC Testing: Human
Workshop: VI C63; IX 36
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-6Rα). CD126 is an 80 kDa type I transmembrane glycoprotein, also known as gp80 and B cell stimulatory factor-2 (BSF-2) Receptor. The IL-6Rα subunit associates with the 130-160 kDa gp130 subunit (IL-6 Receptor β chain, CD130), that is shared with the receptor complexes 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-6Rα chain binds IL-6 with low affinity; however the association with CD130 stabilizes the IL-6/IL-6Rα complex resulting in the formation of a high affinity ligand-receptor complex. The IL-6Rβ chain mediates signal transduction. CD126 is expressed at high levels by activated and EBV-transformed B cells, plasma cells and myeloma cells and at lower levels by most leukocytes, epithelial cells, fibroblasts, hepatocytes and neural cells. IL-6Rα exists in soluble form in human serum. The serum levels of soluble IL-6Rα appear to elevate in pathological situations such as multiple myeloma, Grave's disease, juvenile chronic arthritis and HIV. The M5 antibody is directed against an epitope not involved in interactions of CD126 with IL-6 or CD130.

Application Notes

Application

| Flow cytometry | Routinely Tested |

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.

Flow cytometric analysis of CD126 expression on human peripheral blood lymphocytes. Whole blood was stained with either APC Mouse Anti-Human CD126 (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 Lysing Buffer (Cat. No. 555899). The fluorescence histograms were derived from events with the forward and side light-scattering characteristics of viable lymphocytes. Flow cytometry was performed on a BD™ LSR II.

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.
Suggested Companion Products

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
</tr>
</thead>
<tbody>
<tr>
<td>555899</td>
<td>Lysing Buffer</td>
<td>100 mL</td>
<td>(none)</td>
</tr>
<tr>
<td>555751</td>
<td>APC Mouse IgG1, κ Isotype Control</td>
<td>100 Tests</td>
<td>MOPC-21</td>
</tr>
<tr>
<td>554656</td>
<td>Stain Buffer (FBS)</td>
<td>500 mL</td>
<td>(none)</td>
</tr>
<tr>
<td>554657</td>
<td>Stain Buffer (BSA)</td>
<td>500 mL</td>
<td>(none)</td>
</tr>
<tr>
<td>349202</td>
<td>BD FACSTM Lysing Solution</td>
<td>100 mL</td>
<td>(none)</td>
</tr>
</tbody>
</table>

Product Notices

1. 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).

2. An isotype control should be used at the same concentration as the antibody of interest.

3. 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.

4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

5. This APC-conjugated reagent can be used in any flow cytometer equipped with a dye, HeNe, or red diode laser.

6. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.


References


