Technical Data Sheet

BB515 Rat Anti-Mouse IL-23 Receptor

Product Information

Material Number: 566212
Alternate Name: Il23r; IL-23R; Interleukin 23 receptor
Size: 25 µg
Concentration: 0.2 mg/ml
Clone: O78-1208
Immunogen: Mouse IL-23 Receptor Recombinant Protein
Isotype: Rat (LOU) IgG1, κ
Reactivity: QC Testing: Mouse
Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The O78-1208 monoclonal antibody specifically binds to the mouse Interleukin-23 Receptor (IL-23R) subunit that is encoded by the il23r gene. The IL-23R subunit is a type I transmembrane glycoprotein and member of the hemopoietin receptor superfamily. The mouse IL-23 Receptor complex is comprised of IL-23R and IL-12 receptor beta 1 (IL-12Rβ1) subunits. The IL-23R complex can bind IL-23, a cytokine that plays roles in innate and adaptive immunity as well as in autoimmune diseases, eg, by the generation and maintenance of Th17 cells. Mouse IL-23R is expressed by activated/memory CD4+ T cells, Th1, Th2 and Th17 cells, γδ T cells, dendritic cells and macrophages as determined by IL-23R mRNA expression and IL-23R-GFP reporter mouse studies. The IL-23-bound IL-23R complex transduces an intracellular signal pathway mediated by a Jak-STAT signaling cascade.

The antibody was conjugated to BD Horizon BB515 which was developed exclusively by BD Biosciences. With an excitation max of 490 nm and an emission max of 515 nm, BD Horizon BB515 can be excited by the 488 nm laser and detected in a standard FITC set (eg, 530/30-nm filter). This dye provides a much brighter alternative to FITC with less spillover into the PE detector.

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.

Application Notes

Application

Flow cytometry Routinely Tested

Flow cytometric analysis of mouse IL-23 Receptor (IL-23R) expression on non-transfected and IL-23R-transfected cells. Non-transfected (Left Panel) and IL-23R-transfected (Right Panel) cells were stained with either BB515 Rat IgG1, κ Isotype Control (Cat. No. 564610; dashed line histogram) or BB515 Rat Anti-Mouse IL-23 Receptor (Cat. No. 566212/565011; solid line histogram). Fluorescence histograms were derived from gated events with the forward and side light-scattering characteristics of viable cells. 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 antibody was conjugated with BD Horizon™ BB515 under optimum conditions and unconjugated antibody was removed.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Recommended Assay Procedure:
For optimal results, it is recommended to perform 2 washes after staining with antibodies. Cells may be prepared, stained with antibodies and washed twice with wash buffer per established protocols for immunofluorescent staining, prior to acquisition on a flow cytometer. Performing fewer than the recommended wash steps may lead to increased spread of the negative population.

For optimal and reproducible results, Brilliant Stain Buffer should be used anytime two or more BD Horizon Brilliant dyes are used in the same experiment. Fluorescent dye interactions may cause staining artifacts which may affect data interpretation. The Brilliant Stain Buffer was designed to minimize these interactions. More information can be found in the Technical Data Sheet of the Brilliant Stain Buffer (Cat. No. 563794) or the BD Horizon Brilliant Stain Buffer Plus (Cat. No. 566385).

Suggested Companion Products

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<th>Name</th>
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<td>Stain Buffer (FBS)</td>
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<td>554657</td>
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<td>BB515 Rat Anti-Mouse IL-23 Receptor</td>
<td>50 µg</td>
<td>O78-1208</td>
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<td>564610</td>
<td>BB515 Rat IgG1, κ Isotype Control</td>
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<td>R3-34</td>
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<td>Brilliant Stain Buffer Plus</td>
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Product Notices
1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
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. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
5. The manufacture, use, sale, offer for sale, or import of this product is subject to one or more patents or pending applications. This product, and only in the amount purchased by buyer, may be used solely for buyer’s own internal research, in a manner consistent with the accompanying product literature. No other right to use, sell or otherwise transfer (a) this product, or (b) its components is hereby granted expressly, by implication or by estoppel. Diagnostic uses require a separate license.
6. BD Horizon Brilliant Stain Buffer is covered by one or more of the following US patents: 8,110,673; 8,158,444; 8,575,303; 8,354,239.

References