Technical Data Sheet

R718 Mouse Anti-Human CD116

Product Information

Material Number:	751653
Size:	50 µg
Clone:	hGMCSFR-M1
Alternative Name:	CSF2RA; GM-CSF Receptor alpha; GM-CSFRα; GMCSFRA; GMR, SMDP4
Reactivity:	Tested in Development:Human
Isotype:	Mouse IgG1, κ
Application:	Flow cytometry(Qualified)
Concentration:	0.2 mg/ml
Workshop No.:	V C007
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.
Regulatory Status:	RUO

Description

The hGMCSFR-M1 antibody reacts with the subunit (GM-CSFR) of the human Granulocyte-Macrophage Colony-Stimulating Factor Receptor complex. This 75-85 kD subunit is also known as CD116. The hGMCSFR-M1 antibody was first clustered at the Fifth International Workshop on Human Leucocyte Differentiation Antigens. The GM-CSFR subunit associates with the 120-140 kD βc subunit (common subunit, CD131), that is shared with the receptors for interleukins IL-3 and IL-5. Both of the chains of the GM-CSFR complex are involved in ligand binding and intracellular signaling. The α chain appears to transmit most of the biological signals. CD116 is expressed by a variety of myeloid cell lines, hematopoietic and non-hematopoetic tumor cells, and normal cell types including monocytes, macrophages, neutrophils, eosinophils, myeloid dendritic cells, endothelial cells, fibroblasts, and placental trophoblasts. Lymphocytes are negative for GM-CSFR expression. Reports suggest that GM-CSFR plays a role in myeloid lineage growth and differentiation. The immunogen used to generate the hGMCSFR-M1 hybridoma was recombinant human GM-CSFR.

The antibody was conjugated to BD Horizon Red 718, which has been developed exclusively for BD Biosciences as a better alternative to Alexa Fluor® 700. BD Horizon Red 718 can be excited by the red laser (628 – 640 nm) and, with an Em Max around 718 nm, it can be detected using a 730/45 nm filter. Due to similar excitation and emission properties, we do not recommend using R718 in combination with APC-R700 or Alexa Fluor® 700.

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 the dye under optimum conditions that minimize unconjugated dye and antibody.

Recommended Assay Procedure

BD™ CompBeads can be used as surrogates to assess fluorescence spillover (Compensation). When fluorochrome conjugated antibodies are bound to BD CompBeads, they have spectral properties very similar to cells. However, for some fluorochromes there can be small differences in spectral emissions compared to cells, resulting in spillover values that differ when compared to biological controls. It is strongly recommended that when using a reagent for the first time, users compare the spillover on cells and BD CompBead to ensure that BD CompBeads are appropriate for your specific cellular application.

Suggested Companion Products

Catalog Number	Name	Size
564219	Human BD Fc Block™	50 µg
554656	Stain Buffer (FBS)	500 mL
554657	Stain Buffer (BSA)	500 mL
555899	Lysing Buffer	100 mL
349202	Lysing Solution 10X Concentrate	100 mL

Product Notices

1. Researchers should determine the optimal concentration of this reagent for their individual applications.
2. The production process underwent stringent testing and validation to assure that it generates a high-quality conjugate with consistent performance and specific binding activity. However, verification testing has not been performed on all conjugate lots.
3. An isotype control should be used at the same concentration as the antibody of interest.
4. 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.
5. Alexa Fluor® is a registered trademark of Life Technologies Corporation.
6. Please refer to http://regdocs.bd.com to access safety data sheets (SDS).
7. Please refer to www.bdbiosciences.com/us/s/resources for technical protocols.
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