Technical Data Sheet

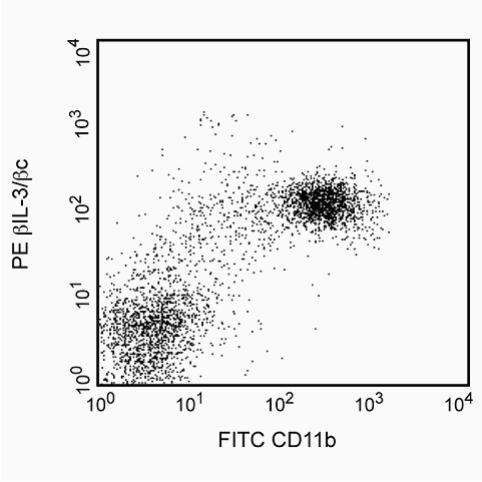
PE Rat Anti-Mouse CD131

Product Information

Material Number:	**559920**
Alternate Name:	βIL-3R, βc
Size:	0.2 mg
Concentration:	0.2 mg/ml
Clone:	JORO50
Immunogen:	Bone Marrow-Derived C4-77 Pro-T Lymphocyte Clone
Isotype:	Rat IgG1, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The JORO50 antibody reacts with the extracellular regions of the mouse CD131 (βIL-3 (AIC2A) and βc (AIC2B) cytokine receptor subunits). A variety of mouse cell types, including multipotential hematopoietic stem cells, mast cells, megakaryocytes, eosinophils, erythroblasts, pre-B cells, and osteoclasts, express βIL-3 and βc subunits. Either βIL-3 or βc can combine with the IL-3Rα chain to form two distinct, functional (i.e., signaling), high affinity receptors for mouse IL-3. The βIL-3 subunit by itself can bind mouse IL-3 with low affinity whereas the βc subunit can not. βc (but not βIL-3) can combine with the IL-5Rα (CD125) and GM-CSFRα (CD116) subunits to form high affinity, signaling receptors for mouse IL-5 or GM-CSF, respectively. The immunogen used to generate the JORO50 hybridoma was the bone marrow-derived, C4-77 pro-T lymphocyte clone.



High level expression of βIL-3 and βc by Mac-1+ bone marrow cells. *BALB/c bone marrow cells (BMC) were stained (20 minutes at 4°C) with phycoerythrin-conjugated JORO50 antibody (1 µg mAb/10^6 cells; Cat. No. 559920) and FITC-anti-CD11b (Cat. No. 553310).*

Preparation and Storage

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

Application Notes

Application

Flow cytometry	Routinely Tested

Recommended Assay Procedure:

Immunofluorescent Staining and Flow Cytometric Analysis: The phycoerythrin-conjugated form of JORO50 (Cat. No. 559920) can be used for the immunofluorescent staining (≤ 1 µg antibody/10^6 cells) and flow cytometric analysis of normal mouse cells or cell lines to measure their expressed levels of βIL-3 and βc. An appropriate phycoerythrin-conjugated immunoglobulin isotype control is clone R3-34 (Cat. No. 554685). PE-JORO50 can be used for the direct immunofluorescent staining and flow cytometric analysis of cells that express βIL-3 or βc as described in the image legend.

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Suggested Companion Products

Catalog Number	Name	Size	Clone
554685	PE Rat IgG1, κ Isotype Control	0.1 mg	R3-34
553310	FITC Rat Anti-Mouse CD11b	0.5 mg	M1/70

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
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.