Technical Data Sheet

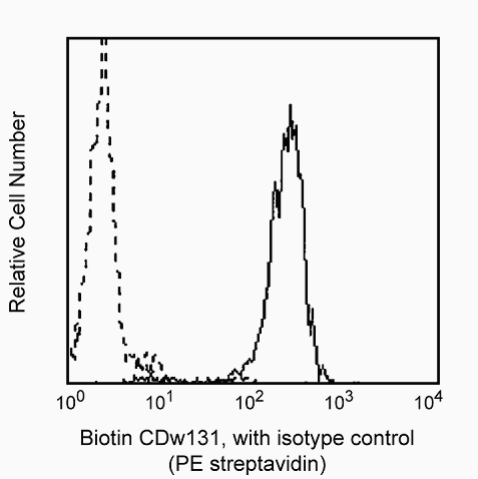
Biotin Mouse Anti-Human CDw131

Product Information

Material Number:	**554535**
Alternate Name:	Cytokine receptor common β chain
Size:	0.5 mg
Concentration:	0.5 mg/ml
Clone:	3D7
Immunogen:	Human IL-3 transfected cells
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The 3D7 antibody reacts with CDw131 the 120 kD common β chain (βc) which is shared with the receptor complexes for human granulocyte-macrophage colony stimulating factor (GM-CSFR), interleukin-3 (IL-3R) and interleukin-5 (IL-5R). Together with the α subunit of either the IL-3R (IL-3Rα), IL-5R (IL-5Rα), or GM- CSFR (GM-CSFRα), the common β chain forms high-affinity, signaling receptors for human IL-3, IL-5 and GM-CSF, respectively. Cell surface βc are expressed by a variety of different cell types including hematopoietic progenitor cells derived from pluripotent stem cells, monocytes, neutrophils, eosinophils, basophils, endothelial cells, fibroblasts, and Langerhans cells. The immunogen used to generate this hybridoma was cells co-transfected with expression vectors which contained cDNA for the human IL-3 α and β chains.



Profile of GM-CSFR (β chain) transfectant CHO cells on a FACScan™ (BDIS, San Jose, CA)

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
The antibody was conjugated with biotin under optimum conditions, and unreacted biotin was 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:

Because low level expression of cytokine receptor is frequently observed, it is recommended that streptavidin-PE (SAV-PE), Cat. No. 554061, or SAV-PE-Cy5, Cat. No. 554062, be used rather than SAV-FITC to detect binding of biotinylated 3D7.

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Suggested Companion Products

Catalog Number	Name	Size	Clone
554062	PE-Cy™5 Streptavidin	0.1 mg	(none)
554061	PE Streptavidin	0.5 mg	(none)
550615	Biotin Mouse IgG1 κ Isotype Control	0.25 mg	MOPC-31C

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. 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.

References

Callard R, Gearing A. Callard R, Gearing A. *The Cytokine Facts Book.* San Diego: Academic Press; 1994.(Biology)

Guesdon JL, Ternynck T, Avrameas S. The use of avidin-biotin interaction in immunoenzymatic techniques. *J Histochem Cytochem.* 1979; 27(8):1131-1139. (Biology)

Woodcock JM, Zacharakis B, Plaetinck G. Three residues in the common beta chain of the human GM-CSF, IL-3 and IL-5 receptors are essential for GM-CSF and IL-5 but not IL-3 high affinity binding and interact with Glu21 of GM-CSF. *EMBO J.* 1994; 13(21):5176-5185.(Biology)