Technical Data Sheet

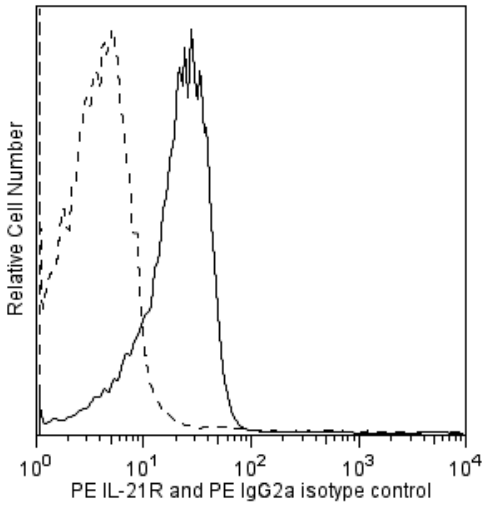
PE Rat anti-Mouse IL-21 Receptor

Product Information

Material Number:	**558607**
Size:	0.1 mg
Concentration:	0.2 mg/ml
Clone:	4A9
Isotype:	Rat IgG2a, κ
Reactivity:	Mouse
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The rat monoclonal antibody 4A9 recognizes the mouse IL-21 receptor (IL-21R), a member of the cytokine receptor superfamily that closely resembles IL-2Rβ and IL-4Rα. The functional IL-21R, consisting of the IL-21R subunit and the common γ-chain, activates Jak-1, Jak-3, STAT1, STAT3, and STAT5 by binding the ligand, IL-21. The cellular response to ligand binding is complex being dependent on co-stimulation with other molecules and can result in either positive or negative regulatory signals . IL-21R is detected on developing T and B lymphocytes after commitment to each of these lineages with highest expression on mature and activated T and B lymphocytes. It has also been found to be involved in NK cell expansion.



Flow cytometric analysis of PE-conjugated anti-mouse IL-21 receptor (IL-21R) on mouse splenocytes. *Isolated murine splenocytes were stained with either PE anti-IL-21R (clone 4A9, Cat. No. 558607, solid line) or a PE rat IgG2a isotype control (catalog number 553930, dashed line) and analyzed by flow cytometry. Flow cytometry was performed on a BD FACSCalibur™ System and the histograms were derived from the gated events based on light scattering characteristics of viable splenocytes.*

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

Suggested Companion Products

Catalog Number	Name	Size	Clone
553930	PE Rat IgG2a, κ Isotype Control	0.1 mg	R35-95

Product Notices

1. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
2. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
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.

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References

Jin H, Carrio R, Yu A, Malek TR. Distinct activation signals determine whether IL-21 induces B cell costimulation, growth arrest, or Bim-dependent apoptosis. *J Immunol.* 2004; 173(1):657-665. (Biology)

Vosshenrich CA, Ranson T, Samson SI et al. Roles for common cytokine receptor gamma-chain-dependent cytokines in the generation, differentiation, and maturation of NK cell precursors and peripheral NK cells in vivo. *J Immunol.* 2005; 174(3):1213-1221. (Biology)