

## Technical Data Sheet

## Biotin Mouse Anti-Human CD123

## Product Information

<b>Material Number:</b>	554528
<b>Alternate Name:</b>	IL-3 Receptor $\alpha$ chain
<b>Size:</b>	0.5 mg
<b>Concentration:</b>	0.5 mg/ml
<b>Clone:</b>	7G3
<b>Immunogen:</b>	Human IL-3Ra-transfected cells
<b>Isotype:</b>	Mouse IgG2a, $\kappa$
<b>Reactivity:</b>	QC Testing: Human
<b>Storage Buffer:</b>	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

## Description

Reacts with human CD123, the 70 kD IL-3 receptor  $\alpha$  chain (IL-3R $\alpha$ ), which associates with the 120-140 kD  $\beta$  subunit. The  $\beta$  chain is shared with the receptors for interleukins IL-5 and GM-CSF. IL-3R $\alpha$  is expressed on hematopoietic progenitors and plays an important role in hematopoietic progenitor cell growth and differentiation. This antibody has been reported to block the binding of 125I-IL-3 to high and low affinity IL-3 receptors. In functional experiments, this antibody was found to inhibit acute myeloid leukemia cell proliferation, basophil histamine release, endothelial cell-mediated IL-8 secretion, and neutrophil transmigration. This antibody has been reported to be useful for immunoprecipitation, western blot and immunofluorescent staining for flow cytometry. At the Fifth HLDA Workshop, the human IL-3 receptor was designated CD123.

This antibody is routinely tested by flow cytometric analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.

## 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
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## Recommended Assay Procedure:

**Immunofluorescent Staining and Flow Cytometric Analysis:** The 7G3 antibody is useful for immunofluorescent staining and flow cytometric analysis to identify and enumerate CD123 producing cells within mixed cell populations and can be used with Streptavidin PE (Cat. No. 554061). The purified format of this antibody can be used in conjunction with biotinylated goat anti-mouse Ig with no cross reactivity to human Ig and streptavidin-phycoerythrin in a three layer staining procedure to amplify immunofluorescent signals for the flow cytometric analysis of cytokine receptor-expressing cells.

**Neutralization:** The NA/LE™ format of the 7G3 antibody (Cat. No. 554526) can be used to neutralize IL-3 bioactivities.

## Suggested Companion Products

Catalog Number	Name	Size	Clone
554061	PE Streptavidin	0.5 mg	(none)

## 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](http://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.

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