

## Technical Data Sheet

## FITC Rat Anti-Mouse CD23

## Product Information

<b>Material Number:</b>	561772
<b>Alternate Name:</b>	FcεRII
<b>Size:</b>	0.1 mg
<b>Concentration:</b>	0.5 mg/ml
<b>Clone:</b>	B3B4
<b>Immunogen:</b>	FcεR isolated from the mouse B hybridoma line O1.2B2
<b>Isotype:</b>	Rat (LOU) IgG2a, κ
<b>Reactivity:</b>	QC Testing: Mouse
<b>Storage Buffer:</b>	Aqueous buffered solution containing ≤0.09% sodium azide.

## Description

The B3B4 antibody reacts with CD23, the low affinity IgE Fc receptor (FcεRII) expressed on mature resting conventional B lymphocytes, but not on B-1 cells (CD5+ B cells) or T lymphocytes. It does not react with high-affinity IgE receptors, as demonstrated on mouse mast cell lines. The regulation of CD23 surface expression on activated B cells appears to be complex, depending upon the mode of activation and the presence of cytokines. IgE synthesis is negatively regulated by CD23, and CD23 expression is upregulated on splenocytes in the presence of IgE. CD23 is also upregulated on follicular dendritic cells in the lymph nodes of immunized mice, and a subset of splenic dendritic cells expresses CD23. The B3B4 antibody abrogates antigen-specific IgE-dependent modulation of immune responses in normal mice. This monoclonal antibody also blocks IgE binding and eosinophil infiltration in the lung of immunized mice. Different *in vivo* results have been obtained when using the intact B3B4 antibody or the F(ab')<sub>2</sub> fragments. B3B4 mAb does not cross-react with rat or human IgE Fc Receptor.

## 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 with FITC under optimum conditions, and unreacted FITC was removed.

## Application Notes

## Application

Flow cytometry	Routinely Tested
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## Suggested Companion Products

Catalog Number	Name	Size	Clone
553929	FITC Rat IgG2a, κ Isotype Control	0.25 mg	R35-95
554656	Stain Buffer (FBS)	500 ml	(none)

## Product Notices

- Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- Please refer to [www.bdbiosciences.com/pharmingen/protocols](http://www.bdbiosciences.com/pharmingen/protocols) for technical protocols.
- 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.
- For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at [www.bdbiosciences.com/colors](http://www.bdbiosciences.com/colors).
- An isotype control should be used at the same concentration as the antibody of interest.

## References

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Dasic G, Juillard P, Graber P, et al. Critical role of CD23 in allergen-induced bronchoconstriction in a murine model of allergic asthma. *Eur J Immunol.* 1999; 29(9):2957-2967. (Clone-specific: In vivo exacerbation)

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Oshiba A, Hamelmann E, Haczku A, et al. Modulation of antigen-induced B and T cell responses by antigen-specific IgE antibodies. *J Immunol.* 1997; 159(8):4056-4063. (Clone-specific: Blocking)

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