EXBIO Antibodies

PRODUCT DATA SHEET

1F-656-C100

Monoclonal Antibody to CD8b (rat) Fluorescein (FITC) conjugated (0.1 mg)

Clone:	341
Isotype:	Mouse IgG1
Specificity:	The mouse monoclonal antibody 341 (also known as 34.1) recognizes rat CD8b, the 32-34 kDa beta chain of the CD8 coreceptor, expressed on T cell subsets and some other cell types, such as macrophages.
Regulatory Status:	RUO
Immunogen:	CD8 positive Wistar rat splenic T cell hybridomas
Species Reactivity:	Rat
Preparation:	The purified antibody is conjugated with Fluorescein isothiocyanate (FITC) under optimum conditions. The reagent is free of unconjugated FITC.
Concentration:	0.5 mg/ml
Storage Buffer:	Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4
Storage / Stability:	Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label.
Usage:	The reagent is designed for Flow Cytometry analysis.
Expiration:	See vial label
Lot Number:	See vial label
Background:	The CD8b (CD8 beta) subunit of CD8 T cell coreceptor is expressed in CD8 alpha/beta heterodimers on majority of MHC I-restricted conventional T cells and thymocytes and in CD8 alpha/alpha homodimers on subsets of memory T cells, intraepithelial lymphocytes, NK cells, macrophages, mast cells, and dendritic cells. Regulation of CD8 beta level on T cell surface seems to be an important mechanism to control their effector function. Assembly of CD8 alpha/beta but not alpha/alpha dimers is connected with formation or localization to the lipid rafts. Recruiting triggered TCR complexes to these membrane microdomains as well as affinity of TCR to MHC I is modulated by CD8, thereby affecting the functional diversity of the TCR signaling.

For laboratory research only, not for drug, diagnostic or other use.

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References:

*Kraus E, Lambracht D, Wonigeit K, Hünig T: Negative regulation of rat natural killer cell activity by major histocompatibility complex class I recognition. Eur J Immunol. 1996 Nov;26(11):2582-6.
*Torres-Nagel N, Kraus E, Brown MH, Tiefenthaler G, Mitnacht R, Williams AF, Hünig T: Differential thymus dependence of rat CD8 isoform expression. Eur J Immunol. 1992 Nov;22(11):2841-8.
*Kühnlein P, Park JH, Herrmann T, Elbe A, Hünig T: Identification and characterization of rat gamma/delta T lymphocytes in peripheral lymphoid organs, small intestine, and skin with a monoclonal antibody to a constant determinant of the gamma/delta T cell receptor. J Immunol. 1994 Aug 1;153(3):979-86.
*Hirji N, Lin TJ, Befus AD: A novel CD8 molecule expressed by alveolar and peritoneal macrophages stimulates nitric oxide production. J Immunol. 1997 Feb 15;158(4):1833-40.
*Hirji N, Lin TJ, Bissonnette E, Belosevic M, Befus AD: Mechanisms of macrophage stimulation through CD8: macrophage CD8alpha and CD8beta induce nitric oxide production and associated killing of the parasite Leishmania major. J Immunol. 1998 Jun 15;160(12):6004-11.
*Lin TJ, Hirji N, Nohara O, Stenton GR, Gilchrist M, Befus AD: Mast cells express novel CD8 molecules that selectively modulate mediator secretion. J Immunol. 1998 Dec 1;161(11):6265-72.
*Ellerman KE, Like AA: Islet cell membrane antigens activate diabetogenic CD4+ T-cells in the BB/Wor rat. Diabetes. 1999 May;48(5):975-82.
*Nohara O, Kulka M, Déry RE, Wills FL, Hirji NS, Gilchrist M, Befus AD: Regulation of CD8 expression in mast cells by exogenous or endogenous nitric oxide. J Immunol. 2001 Nov 15;167(10):5935-9.
*Mabarrack NH, Turner NL, Mayrhofer G: Recent thymic origin, differentiation, and turnover of regulatory T cells. J Leukoc Biol. 2008 Nov;84(5):1287-97.

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