

Anti-CD97 antigen CD97 Antibody

Catalog Number: A02982

Introduction

CD3epsilon is a 20kD chain, which together with CD3lambda, CD3delta, and CD3zeta, and a T cell receptor (alpha/beta or gamma/δ) form the CD3/T-cell receptor complex. It is a specific marker for T lymphocytes, NK T cells, and some thymocytes. Crosslinking of TCR initiates an intracellular signaling cascade resulting in cellular activation and proliferation. The OKT3 antibody has been reported to have potent immunosuppressive properties in vivo and has been proved effective in the treatment of renal, heart, and liver allograft rejection.

This antibody is routinely tested by flow cytometric analysis. Flow cytometry and other applications were tested during antibody development or are reported in the literature.

Application Information

Each lot of this antibody has been quality control tested by flow cytometric analysis of human PBMCs. For flow cytometric staining, the recommended use of this antibody is $\leq 0.5\mu\text{g}$ per 1×10^6 cells in $100\mu\text{l}$ of staining volume followed by a secondary fluorescent conjugated anti-mouse antibody. However, it is strongly suggested that the antibody reactivity be empirically titrated for optimal performance in the application of interest.

About CD97

This antibody is suitable for Cancer, Immunology and Nuclear Signaling research. CD97 is a membrane antigen that is either constitutively expressed or induced by activation on cells of the immune system including colon, thyroid, stomach, and esophagus. One high affinity ligand that has been identified for CD97 is the integrin alpha 5 beta 1. CD97 engagement of endothelial alpha5 beta 1 results in increased angiogenesis. Signals generated through CD97 are thought to result in Rho activation and the regulation of motility. Anti-CD97 is ideal for researchers interested in cancer, angiogenesis, and inflammation.

Overview

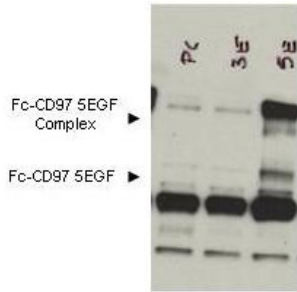
Product Name	Anti-CD97 antigen CD97 Antibody
Reactive Species	Human, Chimpanzee
Description	Boster Bio Anti-CD97 antigen CD97 Antibody (Catalog # A02982). Tested in IF, WB applications. This antibody reacts with Human, Chimpanzee.
Conjugate	Biotin
Application	ELISA, IF, WB
Clonality	Polyclonal
Formulation	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2, 0.01% (w/v) Sodium Azide
Storage Instructions	Store vial at 4°C prior to restoration. For extended storage aliquot contents and freeze at -20°C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4°C as an undiluted liquid.

	Dilute only prior to immediate use. Expiration date is one (1) year from date of opening. (Ship at ambient temperature.)
Host	Rabbit
Uniprot ID	Q9Z0M6

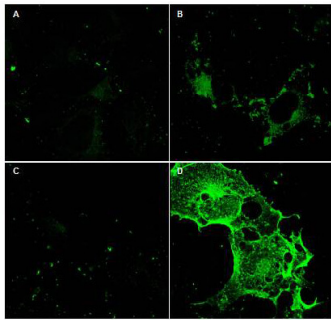
Technical Details

Immunogen	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a recombinant protein corresponding to amino acids 1-512 (extracellular domain) of mouse CD97 protein.
Predicted Reactive Species	Mouse, Rat
Cross Reactivity	beta-Actin antibody is human, mouse, rat, rabbit, chicken, zebrafish and drosophila reactive.
Isotype	IgG
Form	Lyophilized
Concentration	5.0 mg/mL by UV absorbance at 280 nm
Purification	This Protein A purified antibody is directed against the mouse CD97 protein. The product was protein A purified from monospecific antiserum. A BLAST analysis was used to suggest cross-reactivity with CD97 proteins from mouse (100%) and rat (74%). Only 49% homology is noted for the human homologue. Reactivity against CD97 from other sources is not known.
Suggested Dilutions	ELISA: 1:10,000 - 1:50,000 IF Microscopy: 1:1,000 - 1:5,000 WB: 1:1,000 - 1:5,000 This Protein A purified antibody has been tested for use in immunofluorescence microscopy and western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 81 kDa in size corresponding to isoform 1 of CD97 protein by western blotting in the appropriate cell lysate or extract.

Anti-CD97 antigen CD97 Antibody (A02982) Images



Western blot using Boster's Protein A purified anti-CD97 antibody Lane 1: lysate from cells transfected with control DNA. Lane 2: bone marrow lysates taken from CD97 knockout mice. Lane 3: lysate from COS cells expressing Fc-CD97- (5EGF). Load: 10 μ L per lane. Primary Antibody: 1:1,000 dilution of the primary antibody was used. Secondary Antibody: Exposure: 10-sec. Results: The formation of the CD97 complex is currently under investigation. A shows detection of bands corresponding to free Fc-CD97- (5EGF) (lower arrowhead) and Fc-CD97- (5EGF) present as a complex (upper arrowhead) in lysates from COS cells. No staining was noted from bone marrow lysates taken from CD97 knockout mice. ~65 kDa appearing in all lanes is not known. Personal Communication. Yvona Ward. NIH, NCI, CCR, Bethesda, MD.



Immunofluorescence Microscopy using Boster's Protein A purified anti-CD97 antibody shows staining of Fc-CD97-(5EGF) (panel D) in transfected COS cells. Panel A and C shows similar staining using pre-immune serum. Panel A and B show staining of mock transfected COS cells (no vector). A 1:2,500 dilution of the primary antibody was used. Personal Communication. Yvona Ward. NIH, NCI, CCR, Bethesda, MD.

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