

Anti-Human CD5 DyLight® 488 conjugated Antibody(monoclonal, 4E2)
Catalog # ABO14905

Specification

Anti-Human CD5 DyLight® 488 conjugated Antibody(monoclonal, 4E2) - Product Information

Application	FC
Primary Accession	P06127
Host	Mouse
Isotype	Mouse IgG1
Reactivity	Human
Clonality	Monoclonal
Format	Lyophilized

Description

Anti-Human CD5 DyLight® 488 conjugated Antibody (monoclonal, 4E2) . Tested in Flow Cytometry applications. This antibody reacts with Human.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500 µg/ml.

Anti-Human CD5 DyLight® 488 conjugated Antibody(monoclonal, 4E2) - Additional Information

Gene ID 921

Other Names

T-cell surface glycoprotein CD5, Lymphocyte antigen T1/Leu-1, CD5, CD5, LEU1

Application Details

Flow Cytometry, 1-3 µg/1x10⁶ cells, Human

Subcellular Localization

Cell membrane ; Single-pass type I membrane protein

Contents

Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg NaN₃.

Immunogen

E. coli-derived human CD5 recombinant protein (Position: R25-L495).

Purification

Immunogen affinity purified.

Cross Reactivity

No cross-reactivity with other proteins.

Storage

**At -20°C for one year from date of receipt.
Avoid repeated freezing and thawing.**

Protect from light.

Anti-Human CD5 DyLight® 488 conjugated Antibody(monoclonal, 4E2) - Protein Information

Name CD5

Synonyms LEU1

Function

Lymphoid-specific receptor expressed by all T-cells and in a subset of B-cells known as B1a cells. Plays a role in the regulation of TCR and BCR signaling, thymocyte selection, T-cell effector differentiation and immune tolerance. Acts by interacting with several ligands expressed on B-cells such as CD5L or CD72 and thereby plays an important role in contact-mediated, T-dependent B-cell activation and in the maintenance of regulatory T and B-cell homeostasis. Functions as a negative regulator of TCR signaling during thymocyte development by associating with several signaling proteins including LCK, CD3Z chain, PI3K or CBL (PubMed:1384049, PubMed:1385158). Mechanistically, co- engagement of CD3 with CD5 enhances phosphorylated CBL recruitment leading to increased VAV1 phosphorylation and degradation (PubMed:23376399). Modulates B-cell biology through ERK1/2 activation in a Ca(2+)-dependent pathway via the non-selective Ca(2+) channel TRPC1, leading to IL-10 production (PubMed:27499044).

Cellular Location

Cell membrane {ECO:0000250|UniProtKB:P13379}; Single-pass type I membrane protein {ECO:0000250|UniProtKB:P13379}

Anti-Human CD5 DyLight® 488 conjugated Antibody(monoclonal, 4E2) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-Human CD5 DyLight® 488 conjugated Antibody(monoclonal, 4E2) - Images



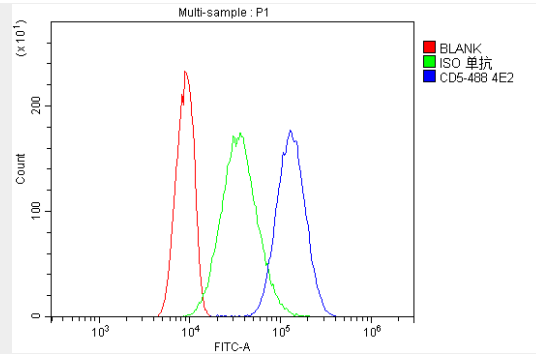


Figure 1. Flow Cytometry analysis of A431 cells using anti-Human CD5 antibody (M00480-Dyl488).

Overlay histogram showing A431 cells stained with M00480-Dyl488 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-Human CD5 Antibody (M00480-Dyl488,1 $\mu\text{g}/1 \times 10^6$ cells) for 30 min at 20°C. Isotype control antibody (Green line) was mouse IgG (1 $\mu\text{g}/1 \times 10^6$) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

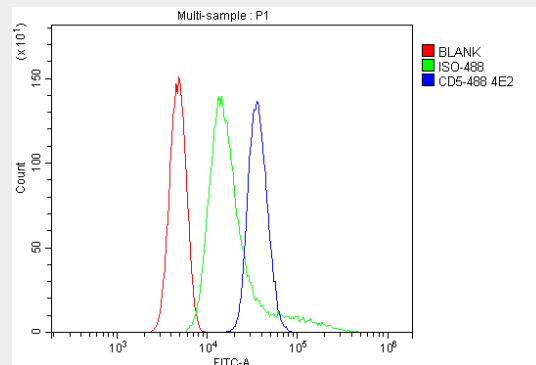


Figure 2. Flow Cytometry analysis of HL-60 cells using anti-Human CD5 antibody (M00480-Dyl488).

Overlay histogram showing HL-60 cells stained with M00480-Dyl488 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-Human CD5 Antibody (M00480-Dyl488,1 $\mu\text{g}/1 \times 10^6$ cells) for 30 min at 20°C. Isotype control antibody (Green line) was mouse IgG (1 $\mu\text{g}/1 \times 10^6$) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

Anti-Human CD5 DyLight® 488 conjugated Antibody(monoclonal, 4E2) - Background

CD5 is a member of the scavenger receptor cysteine-rich (SRCR) superfamily. Members of this family are secreted or membrane-anchored proteins mainly found in cells associated with the immune system. In humans, the gene is located on the long arm of chromosome 11. This protein is a type-I transmembrane glycoprotein found on the surface of thymocytes, T lymphocytes and a subset of B lymphocytes. The encoded protein contains three SRCR domains and may act as a receptor to regulate T-cell proliferation. Alternative splicing results in multiple transcript variants encoding different isoforms.