10320 Camino Santa Fe, Suite G
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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/1x10^6 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.**

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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 Cytomety
- Cell Culture

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

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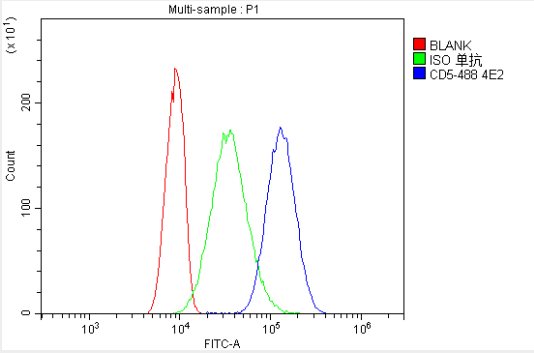

Figure 1. Flow Cytometry analysis of A431 cells using anti-Human CD5 antibody (M00480-Dyl488).
Overlay histogram showing A431 cells stained with M00480-Dyl488 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-Human CD5 Antibody (M00480-Dyl488,1 µg/1x10^6 cells) for 30 min at 20°C. Isotype control antibody (Green line) was mouse IgG (1 µg/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

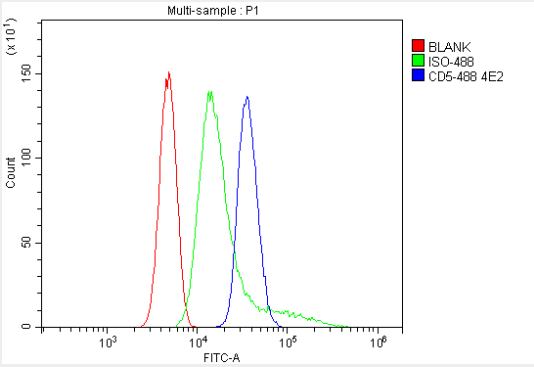

Figure 2. Flow Cytometry analysis of HL-60 cells using anti-Human CD5 antibody (M00480-Dyl488).
Overlay histogram showing HL-60 cells stained with M00480-Dyl488 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-Human CD5 Antibody (M00480-Dyl488,1 µg/1x10^6 cells) for 30 min at 20°C. Isotype control antibody (Green line) was mouse IgG (1 µg/1x10^6) 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.