anti-human CD4 no azide

Monoclonal Antibody EDU-2 to human CD4

Cat-No: **21278040** 100 μg in 100 μl

Clone: EDU-2

Specificity: The antibody EDU-2 recognizes CD4 antigen, a 55 kDa transmembrane glycoprotein expressed on a subset of T lymphocytes ("helper" T-cells) and also on monocytes, tissue macrophages and granulocytes.

HLDA II.; WS Code T 107 / HLDA III.; WS Code T 512

Isotype subclass: Mouse IgG2a

Form: Purified from hybridoma culture supernatant by protein-A affinity chromatography

Purity: > 95% (by SDS-PAGE)

Physical state: Liquid

Buffer/Additives/Preservative: sterile PBS, pH 7.2

Expiration date: The reagent is stable until the expiry date stated on the vial label.

Storage conditions: Aliquot and store at -20°C. Avoid freeze/thaw cycles. Should be handled under aseptic

conditions.

Application: functional application

References:

Millan J, Cerny J, Horejsi V, Alonso MA.: CD4 segregates into specific detergent-resistant membrane microdomains. Tissue Antigens. 1999 Jan; 53(1):33-40 and others

Background: CD4 is a single chain transmembrane glycoprotein and belongs to immunoglobulin supergene family. In extracellular region there are 4 immunoglobulin-like domains (1 Ig-Like V-type and 3 Ig-like C2-Type). Transmembrane region forms 25aa, cytoplasmic tail consists of 38 aa. Domains 1, 2 and 4 are stabilized by disulfide bonds. The intracellular domain of CD4 is associated with p56Lck, a Src-like protein tyrosine kinase. It was described, that CD4 segregates into specific detergent-resistant T-cell membrane microdomains. Extracellular ligands: MHC class II molecules (binds to CDR2-like region in CD4 domain 1; HIV envelope protein gp120 (binds to CDR2-like region in CD4 domain 1); IL-16 (binds to CD4 domain 3), Human seminal plasma glycoprotein gp17 (binds to CD4 domain 1), L-selectin; Intracellular ligands: p56Lck;

CD4 is a co-receptor involved in immune response (co-receptor activity in binding to MHC class II molecules) and HIV infection (human immunodeficiency virus; Cd4 is primary receptor for HIV-1 surface glycoprotein gp120). CD4 regulates T-cell activation, T/B-cell adhesion, T-cell differentiation, T-cell selection and signal transduction. Defects in antigen presentation (MHC classII) cause dysfunction of CD4+ T-cells and their almost complete absence in patients blood, tissue and organs (SCID immunodefiency).

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