

Anti-CD8 Antibody (Monoclonal, CA-8)

Catalog # ABO10412

Product Information

Application	IHC-F
Primary Accession	P05541
Host	Mouse
Isotype	Mouse IgG2a
Reactivity	Human
Clonality	Monoclonal
Format	Lyophilized
Description	Mouse IgG monoclonal antibody for CD8, CD8a molecule; CD8b molecule (CD8A; CD8B) detection. Tested with IHC-F in Human. No cross reactivity with other proteins.
Reconstitution	Add 1ml of PBS buffer will yield a concentration of 100ug/ml.

Additional Information

Gene ID	24931
Other Names	T-cell surface glycoprotein CD8 beta chain, CD8 antigen 37 kDa chain, OX-8 membrane antigen, CD8b, Cd8b, Cd8b1
Calculated MW	23400
Application Details	Immunohistochemistry(Frozen Section), 1 µg/ml, Human
Subcellular Localization	Membrane; Single-pass type I membrane protein.
Source	Eukaryota
Protein Name	T-cell surface glycoprotein CD8 alpha chain; T-cell surface glycoprotein CD8 beta chain
Contents	Mouse ascites fluid, 1.2% sodium acetate, 2mg BSA, with 0.01mg NaN3 as preservative.
Clone Names	CA-8
Immunogen	Human thymocytes followed by peripheral blood T cells.
Purification	Ascites
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20 °C for one year. After reconstitution, at 4 °C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated

Sequence Similarities

freezing and thawing.
Contains 1 Ig-like V-type (immunoglobulin-like) domain.

Protein Information

Name Cd8b

Synonyms Cd8b1

Function Integral membrane glycoprotein that plays an essential role in the immune response and serves multiple functions in responses against both external and internal offenses. In T-cells, functions primarily as a coreceptor for MHC class I molecule:peptide complex. The antigens presented by class I peptides are derived from cytosolic proteins while class II derived from extracellular proteins. Interacts simultaneously with the T-cell receptor (TCR) and the MHC class I proteins presented by antigen presenting cells (APCs). In turn, recruits the Src kinase LCK to the vicinity of the TCR-CD3 complex. A palmitoylation site in the cytoplasmic tail of CD8B chain contributes to partitioning of CD8 into the plasma membrane lipid rafts where signaling proteins are enriched. Once LCK recruited, it initiates different intracellular signaling pathways by phosphorylating various substrates ultimately leading to lymphokine production, motility, adhesion and activation of cytotoxic T-lymphocytes (CTLs). Additionally, plays a critical role in thymic selection of CD8+ T- cells.

Cellular Location Cell membrane {ECO:0000250|UniProtKB:P10966}; Single-pass type I membrane protein {ECO:0000250|UniProtKB:P10966} Note=Requires the partner CD8A for efficient cell surface expression The heterodimer CD8A/CD8B localizes to lipid rafts due to CD8B cytoplasmic tail palmitoylation. {ECO:0000250|UniProtKB:P10966}

Background

The human lymphocyte differentiation antigen CD8 is encoded by a single gene that gives rise to a 33- to 34-kDa glycoprotein expressed on the cell surface as a dimer and in higher molecular mass forms.

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