

Anti-CD8a Antibody

Catalog # AP95544

Product Information

Application	FC, IF/IC
Primary Accession	P01732
Reactivity	Human
Host	Mouse
Clonality	Monoclonal (clone: HIT8a)
Calculated MW	25729

Additional Information

Gene ID	925
Other Names	MAL; T-cell surface glycoprotein CD8 alpha chain; T-lymphocyte differentiation antigen T8/Leu-2; CD8a
Target/Specificity	Native purified human CD8a
Dilution	FC~~1:10~50 IF/IC~~N/A
Format	Mouse IgG1 kappa. Liquid in PBS, pH 7.3, and 0.02% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	CD8A
Synonyms	MAL
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. LCK then initiates different intracellular signaling pathways by phosphorylating various substrates ultimately leading to lymphokine production, motility, adhesion and activation of cytotoxic T- lymphocytes (CTLs). This mechanism enables CTLs to recognize and eliminate infected cells and tumor cells. In NK-cells, the presence of CD8A homodimers at the cell surface provides a survival mechanism allowing conjugation and lysis of multiple target cells. CD8A homodimer molecules also promote the survival and differentiation of

activated lymphocytes into memory CD8 T-cells.

Cellular Location

[Isoform 1]: Cell membrane; Single-pass type I membrane protein Note=CD8A localizes to lipid rafts only when associated with its partner CD8B.

Tissue Location

CD8 on thymus-derived T-cells usually consists of a disulfide-linked alpha/CD8A and a beta/CD8B chain. Less frequently, CD8 can be expressed as a CD8A homodimer. A subset of natural killer cells, memory T-cells, intraepithelial lymphocytes, monocytes and dendritic cells expresses CD8A homodimers. Expressed at the cell surface of plasmacytoid dendritic cells upon herpes simplex virus-1 stimulation

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