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CD8A (Cytotoxic / Suppressor T-Cell Marker) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone RIV11]
Catalog # AH12639

Product Information

Application	IF, FC
Primary Accession	P01732
Other Accession	925, 85258
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Clone Names	RIV11
Calculated MW	25729

Additional Information

Gene ID	925
Other Names	T-cell surface glycoprotein CD8 alpha chain, T-lymphocyte differentiation antigen T8/Leu-2, CD8a, CD8A, MAL
Application Note	IF~~1:50~200 FC~~1:10~50
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	CD8A (Cytotoxic / Suppressor T-Cell Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

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

Background

Recognizes a protein of 32kDa, identified as CD8a (also known as CD8 chain, T cell co-receptor, Leu2, and T8). CD8 molecule consists of two chains, termed and chain, which are expressed as a disulphide-linked heterodimer or as an homodimer. CD8 is expressed on T cell subset (cytotoxic/suppressor T cells), thymocytes and NK cells. The majority of CD8+ T-cells expresses CD8 as heterodimer. Some subpopulation of CD8+ T cells as well as NK cells may express homodimer. CD8 functions as a co-receptor in concert with TCR for binding the MHC class I/peptide complex. The HIV-2 envelope glycoprotein binds CD8 chain (but not chain). The cytoplasmic domain of CD8 associates with p56lck tyrosine kinase.

References

Knapp W. et. al. Leukocyte Typing IV, p342-343, Oxford University Press, 1989 | Parnes JR, CD4 and CD8 in T cell lineage commitment: alterations induced by expression of a CD8/CD4 chimeric transgene. Semin Immunol 1994, 6:221-229. | Delon J. et al. CD8 expression allows T cell signaling by monomeric peptide-MHC complexes. Immunity 1998, 9(4):467-73 | Akimoto H, et al. Binding of HIV-2 envelope glycoprotein to CD8 molecules and related chemokine production. Immunology 1998, 95(2):214-218 | Leahy DJ. A structural view of CD4 and CD8. FASEB J. 1995,9(1):17-25. | Jonker M et al. Side effects and immunogenicity of murine lymphocyte-specific monoclonal antibodies in subhuman primates. Transplantation 1988, 45(4):677-682