10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

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

Mouse Monoclonal Antibody [Clone C8/1035]
Catalog # AH12637

Product Information

Application	IF, FC
Primary Accession	P01732
Other Accession	925, 85258
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Clone Names	C8/1035
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

CD8 is a cell surface receptor expressed either as a heterodimer with the CD8 β chain (CD8 α/β) or as a homodimer (CD8 α/α). A majority of thymocytes and a subpopulation of mature T cells and NK cells express CD8a. CD8 binds to MHC class 1 and through its association with protein tyrosine kinase p56lck plays a role in T cell development and activation of mature T cells. For mature T-cells, CD4 and CD8 are mutually exclusive, so anti-CD8, generally used in conjunction with anti-CD4. It is a useful marker for distinguishing helper/inducer T-lymphocytes, and most peripheral T-cell lymphomas are CD4+/CD8-. Anaplastic large cell lymphoma is usually CD4+ and CD8-, and in T-lymphoblastic lymphoma/leukemia, CD4 and CD8 are often co-expressed. CD8 is also found in littoral cell angioma of the spleen.

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. HYPERLINK /htbin-post/Entrez/query?uid=8000031&form=6&db=m&Dopt=bSemin Immunol 1994, 6:221-229

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.