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CD8 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1008a

Product Information

Application	FC, E
Primary Accession	P01732
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	RAVB3
Isotype	IgG1
Calculated MW	25729
Description	CD8 T cell surface antigen is heterodimer of an alpha and a beta chain linked by two disulfide bonds .It belongs type I membrane protein. Selectively expressing of CD8 on a subset of T cells leads to CD8 T cell development. Through identifying cytotoxic/suppressor T-cells that interact with MHC class I bearing targets, CD8 is thought to play a role in the process of T-cell mediated killing. Veillette et al (1988) found the CD8 is associated with the internal membrane tyrosine-protein kinase p56lck.
Immunogen	Purified recombinant fragment of human CD8 expressed in E. Coli.
Formulation	Purified antibody in PBS containing 0.03% sodium azide.

Additional Information

Gene ID	925
Other Names	T-cell surface glycoprotein CD8 alpha chain, T-lymphocyte differentiation antigen T8/Leu-2, CD8a, CD8A, MAL
Dilution	FC~~1/200 - 1/400 E~~N/A
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CD8 Antibody 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

References

1. Veillette, A. et al. 1988. Cell 55:301.

Images

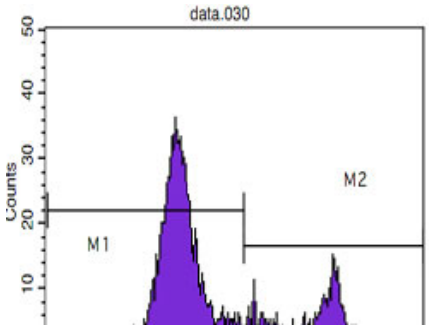

Figure 1: Flow cytometric analysis of blood T cells using CD8 mouse mAb (M2) and negative control (M1).