

# **Anti-CD8A Antibody**

Recombinant Rabbit Monoclonal Antibody Catalog # AH13606

#### **Product Information**

**Application** IHC-P, IF, FC **Primary Accession** P01732 85258 **Other Accession** Reactivity Human Host Rabbit Clonality Monoclonal

Isotype Rabbit / IgG, kappa

**Clone Names** C8/1779R Calculated MW 25729

#### **Additional Information**

925 Gene ID

**Other Names** CD8 antigen, alpha polypeptide (p32), T8/Leu-2 T-lymphocyte differentiation

antigen, Ly3, LYT3, MAL, T-cell surface glycoprotein CD8 alpha chain

**Application Note** Flow Cytometry (0.5-1ug/million cells); ,Immunofluorescence (0.5-1ug/ml);

> ,Immunohistology (Formalin-fixed) (0.5-1ug/ml for 30 minutes at RT),(Staining of formalin-fixed tissues requires boiling tissue sections in 10mM citrate

buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20

minutes), Optimal dilution for a specific application should be determined.

**Format** 200ug/ml of recombinant MAb purified by Protein A. Prepared in 10mM PBS

with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at

1.0mg/ml.

Store at 2 to 8°C. Antibody is stable for 24 months. Storage

**Precautions** Anti-CD8A 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.

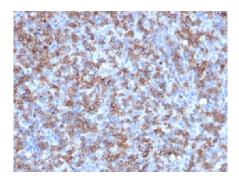
**Tissue Location** 

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

### **Background**

CD8 is a cell surface receptor expressed either as a heterodimer with the CD8 beta chain (CD8 alpha/beta) or as a homodimer (CD8 alpha/alpha). 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.

## **Images**



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