

CD8 FITC Monoclonal Antibody (Clone OKT-8)
Mouse Monoclonal Antibody
Catalog # ABV11467**Specification**

CD8 FITC Monoclonal Antibody (Clone OKT-8) - Product Information

Application	FC
Primary Accession	P01732
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse IgG2a, Kappa

CD8 FITC Monoclonal Antibody (Clone OKT-8) - Additional Information**Gene ID 925**

Positive Control
Application & Usage

FACS: Human PMBCs
Flow (Cell Surface): 5 µl/1x10⁶ cells,
Volume per test: 5 µl (0.125 µg).

Other Names
CD8

Target/Specificity
CD8

Antibody Form
Liquid

Appearance
Colorless liquid

Formulation
Phosphate-buffered aqueous solution pH 7.2, ≤0.09% Sodium azide, may contain carrier protein/stabilizer.

Handling
The antibody solution should be gently mixed before use.

Reconstitution & Storage
4°C

Background Descriptions

Precautions
CD8 FITC Monoclonal Antibody (Clone OKT-8) is for research use only and not for use in diagnostic or therapeutic procedures.

CD8 FITC Monoclonal Antibody (Clone OKT-8) - 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

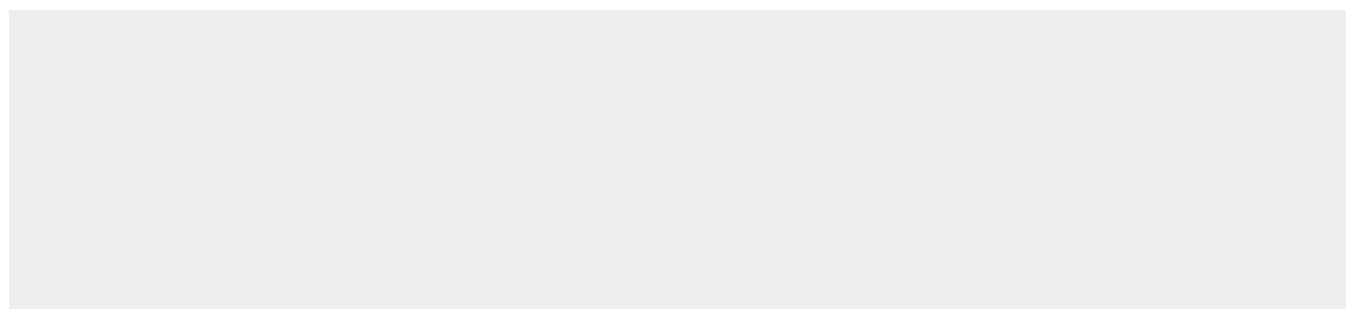
CD8 on thymus-derived T-cells usually consists of a disulfide-linked alpha/CD8A and a beta/CD8B chain. Less frequently, CD8 can be expressed as a CD8A homodimer. A subset of natural killer cells, memory T-cells, intraepithelial lymphocytes, monocytes and dendritic cells expresses CD8A homodimers. Expressed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

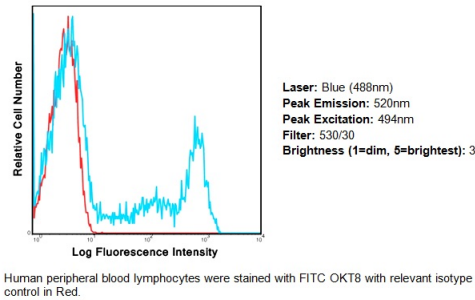
CD8 FITC Monoclonal Antibody (Clone OKT-8) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

CD8 FITC Monoclonal Antibody (Clone OKT-8) - Images





Human peripheral blood lymphocytes were stained with FITC OKT8 with relevant isotype control in Red.

CD8 FITC Monoclonal Antibody (Clone OKT-8) - Background

CD3 (T3), a complex T cell marker, is known to associate noncovalently with the α/β or γ/δ heterodimer of the T cell antigen receptor (TCR) to form the most complex transmembrane (TM) receptor structures. CD3 is specially engaged in antigen recognition and is known to play an important role in mediating signals that are critical for T cell development in the thymus, proliferation, and induction of T cell-mediated immune responses against infectious agents and also in the differentiation of T cells into effector and memory populations. CD3 usually expresses in the cytoplasm of prothymocytes, and on the surface of about 95% of thymocytes, but cytoplasmic CD3 is lost as the cells differentiate into medullary thymocytes. Apart from its role as an important marker in the classification of malignant lymphomas and lymphoid leukemia, CD3 can also be useful for the identification of T cells in celiac disease, lymphocytic colitis and colorectal carcinomas associated with loss of a mismatch repair protein. CD3 indirectly plays an important role in immunomodulation whereas the anti-CD3 antibody may be used in in vitro Treg assays to generate effector T cells. The CD3 complex contains γ , δ , and ϵ chains, and it is part of the TCR complex, expressed by all mature T lymphocytes and by the thymocyte lineage. The OKT3 monoclonal antibody specifically reacts with the ϵ chain of the CD3/T lymphocyte antigen receptor complex. CD3 enhances the antigen recognition by signal transduction. The OKT3 antibody is an immunosuppressive, which has proven to be an effective therapeutic agent in liver, heart, and renal allograft rejection.