Anti-CD4 Antibody, Mouse Monoclonal

Catalog Number: CB-C063m, 100 µg

Introduction

CD4 (cluster of differentiation 4) is a glycoprotein expressed on the surface of T helper cells, regulatory T cells, monocytes, macrophages, and dendritic cells.

CD4 is a co-receptor that assists the T cell receptor (TCR) with an antigen-presenting cell. Using its portion that resides inside the T cell, CD4 amplifies the signal generated by the TCR by recruiting an enzyme, known as the tyrosine kinase lck, which is essential for activating many molecules involved in the signaling cascade of an activated T cell. CD4 also interacts directly with MHC class II molecules on the surface of the antigen-presenting cell using its extracellular domain.

HIV-1 uses CD4 to gain entry into host T-cells and achieves this by binding of the viral envelope protein known as gp120 to CD4. The binding to CD4 creates a shift in the conformation of gp120 allowing HIV-1 to bind to a co-receptor expressed on the host cell. These co-receptors are chemokine receptors CCR5 or CXCR4, which of these co-receptor is used during infection is dependent on whether the virus is infecting a macrophage or T-helper cell[citation needed]. Following a structural change in another viral protein (gp41), HIV inserts a fusion peptide into the host cell that allows the outer membrane of the virus to fuse with the cell membrane.

Description Mouse monoclonal antibody.

Applications Western blot and IHC, may be used for other applications.

Immunogen Recombinant protein encoding intracellular domain of human CD4.

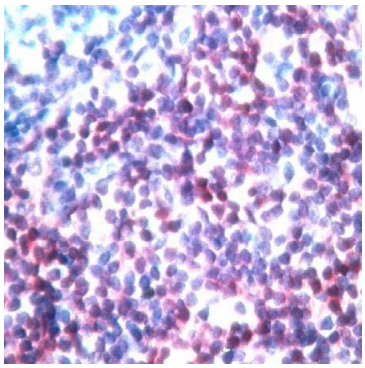
Specificity Recognizes CD4 from human, other species not tested.

Purification Immunoaffinity chromatography**.**

Isotype IgG.

Storage Store at 4 ^{o}C; Stable for at least 6 months from the date of shipment. Non-hazardous. For long-term storage, keep at -20 ^{o}C.

Concentration 1 µg/µl.



IHC staining of paraffin embedded sections of human tonsils.

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