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

CD4 Monoclonal Antibody(11A1)

Catalog # AP63324

Specification

CD4 Monoclonal Antibody(11A1) - Product Information

Application	**IHC-P, IF**
Primary Accession	P01730
Reactivity	**Human, Mouse, Rat**
Host	**Mouse**
Clonality	**Monoclonal**

CD4 Monoclonal Antibody(11A1) - Additional Information

Gene ID 920

Other Names
CD4; T-cell surface glycoprotein CD4; T-cell surface antigen T4/Leu-3; CD4

Dilution
IHC-P~~N/A
IF~~IHC 1:200 IF 1:50-200

Format
PBS, pH 7.4, containing 0.09% (W/V) sodium azide as Preservative and 50% Glycerol.

Storage Conditions
-20℃

CD4 Monoclonal Antibody(11A1) - Protein Information

Name CD4

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 II molecule:peptide complex. The antigens presented by class II peptides are derived from extracellular proteins while class I peptides are derived from cytosolic proteins. Interacts simultaneously with the T-cell receptor (TCR) and the MHC class II 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 T-helper cells. In other cells such as macrophages or NK cells, plays a role in differentiation/activation, cytokine expression and cell migration in a TCR/LCK-independent pathway. Participates in the development of T- helper cells in the thymus and triggers the differentiation of monocytes into functional mature macrophages.

Cellular Location
Cell membrane; Single-pass type I membrane protein. Note=Localizes to lipid rafts

(PubMed:12517957, PubMed:9168119). Removed from plasma membrane by HIV- 1 Nef protein that increases clathrin-dependent endocytosis of this antigen to target it to lysosomal degradation. Cell surface expression is also down-modulated by HIV-1 Envelope polyprotein gp160 that interacts with, and sequesters CD4 in the endoplasmic reticulum

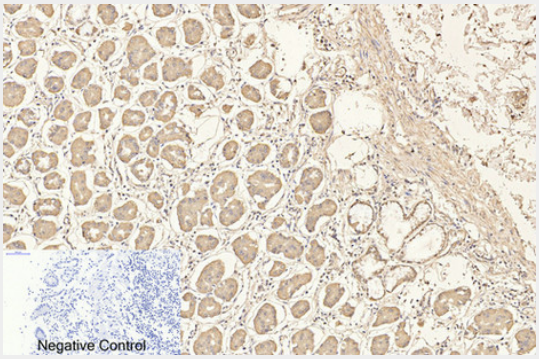
Tissue Location
Highly expressed in T-helper cells. The presence of CD4 is a hallmark of T-helper cells which are specialized in the activation and growth of cytotoxic T-cells, regulation of B cells, or activation of phagocytes. CD4 is also present in other immune cells such as macrophages, dendritic cells or NK cells

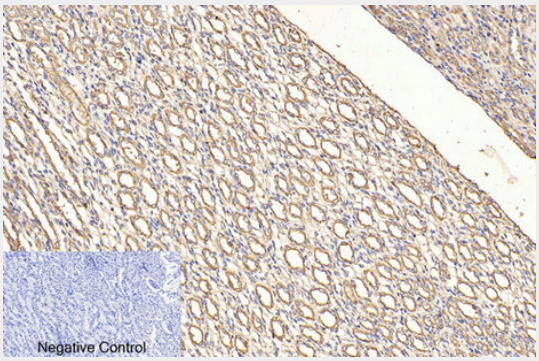
CD4 Monoclonal Antibody(11A1) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

CD4 Monoclonal Antibody(11A1) - Images





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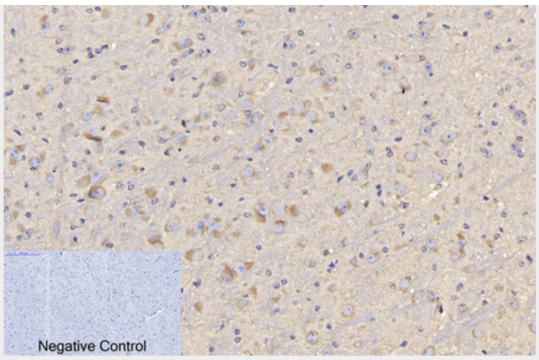

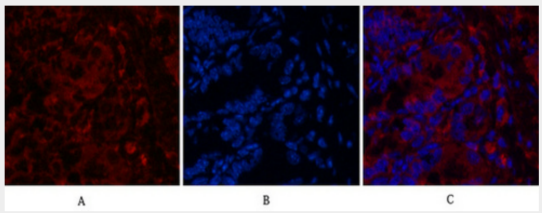

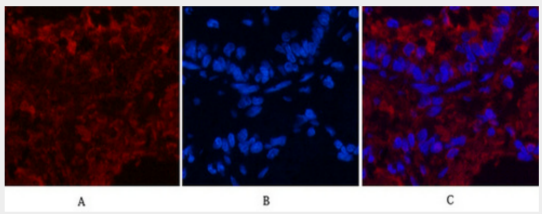

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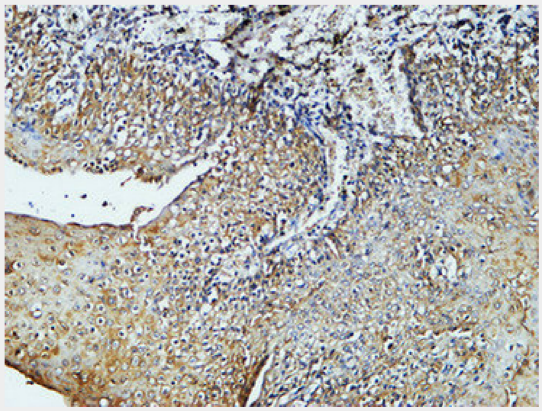

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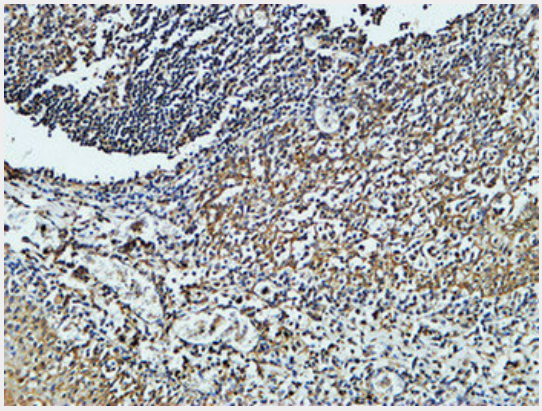

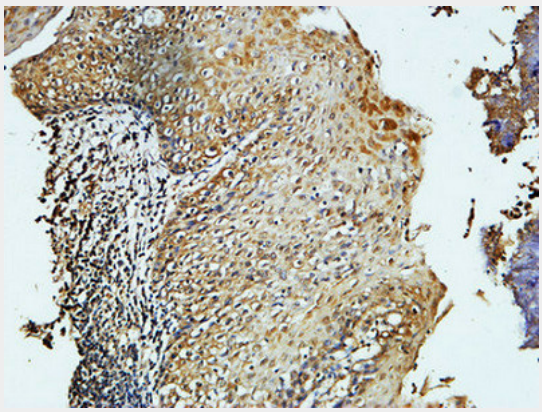

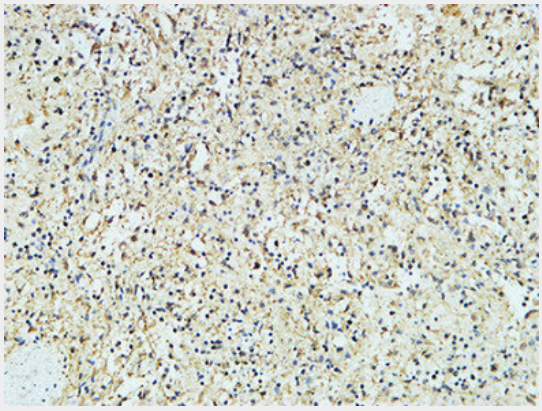

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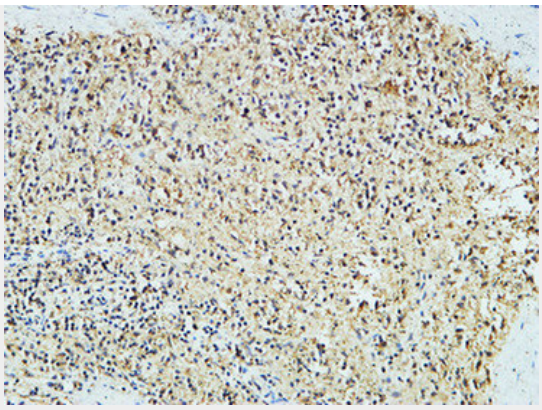

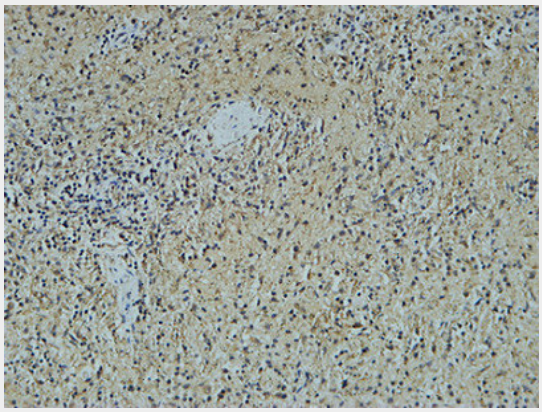

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