

Product datasheet for **TA336736**

CD4 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	FC, ICC/IF, IHC, Simple Western, WB
Recommended Dilution:	Dual RNAscope ISH-IHC, Immunocytochemistry/ Immunofluorescence: 1:50-1:200, Western Blot: 1 ug/ml, Simple Western: 1:100, Flow Cytometry: 5 ug/ml, Immunohistochemistry-Frozen, Immunohistochemistry: 1:50-1:500, Immunohistochemistry-Paraffin: 1:50-1:500
Reactivity:	Human, Mouse, Rat, Rabbit
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	A synthetic peptide made to an C-terminal region of the human CD4 protein (within residues 400-458). [Swiss-Prot P01730]
Formulation:	PBS, 0.05% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Immunogen affinity purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	CD4 molecule
Database Link:	NP_000607 Entrez Gene 12504 Mouse Entrez Gene 24932 Rat Entrez Gene 920 Human P01730



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Background: T-cell surface glycoprotein CD4 (CD4) encodes a membrane glycoprotein found on T lymphocytes. CD4 interacts with major histocompatibility complex (MHC) class II anti-genes and is also a receptor for the human immunodeficiency virus (HIV). Once the CD4 protein binds to the cell membrane of HIV-1 gp120 and P4HB/PDI it becomes part of P4HB/PDI-CD4-CXCR4-gp120 complex. The CD4 protein interacts with HIV-1 envelope protein, Vpu, human herpes virus 7 capsid proteins, and PTK2. In immune mediated and infectious diseases of the central nervous system, CD4 functions as an indirect mediator of neuronal damage. CD4 will also initiate or augment early phase T-cell activation. The CD4 gene is expressed in T lymphocytes, B cells, macrophages, granulocytes, and specific regions of the brain. There are three identified splice variants that encode different isoforms for CD4; one with a predicted transmembrane (TM) region and two with predicted signal peptides.

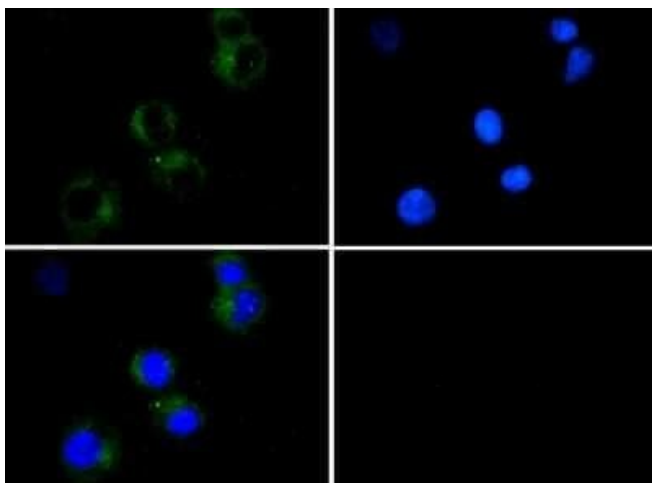
Synonyms: CD4mut

Note: This CD4 antibody is useful for Immunocytochemistry/Immunofluorescence, Flow (see reviews), Western Blot, and Immunohistochemistry-paraffin embedded sections. In WB, a band is seen ~45 kDa. In ICC/IF, membrane staining was observed in human brain cells. Prior to immunostaining paraffin tissues, antigen retrieval with sodium citrate buffer (pH 6.0) is recommended. In ICC/IF, membrane staining was observed in Jurkat cells.

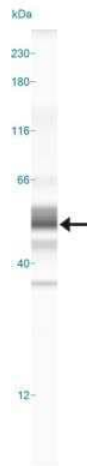
Protein Families: Adult stem cells, Druggable Genome, ES Cell Differentiation/IPS, Induced pluripotent stem cells, Transmembrane

Protein Pathways: Antigen processing and presentation, Cell adhesion molecules (CAMs), Hematopoietic cell lineage, Primary immunodeficiency, T cell receptor signaling pathway

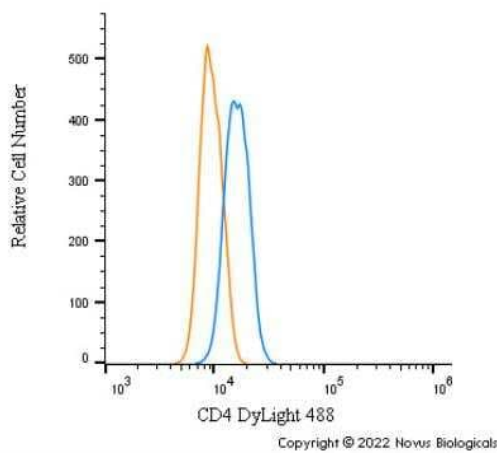
Product images:



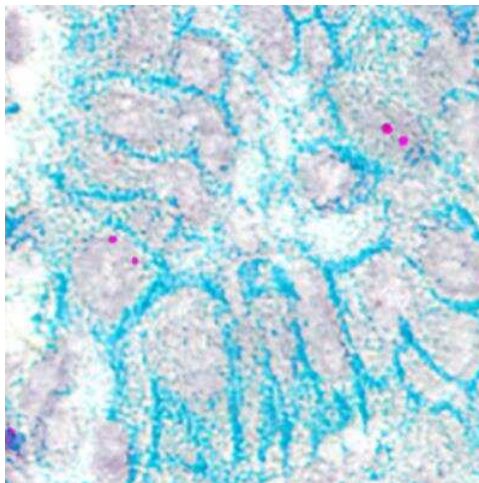
Immunocytochemistry/Immunofluorescence:
CD4 Antibody TA336736 - CD4 antibody was tested in Jurkat cells with DyLight 488 (green). Nuclei were counterstained with DAPI (blue).



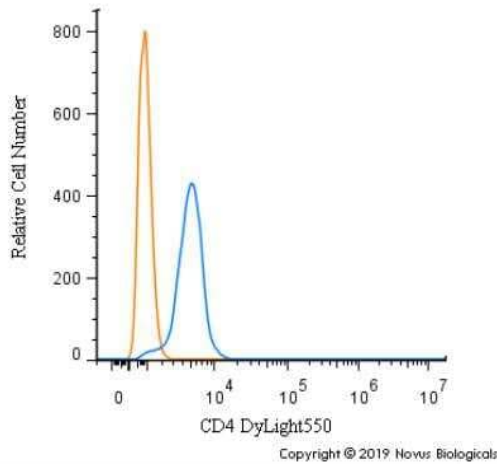
Simple Western: CD4 Antibody TA336736 - Lane view shows a specific band for CD4 in 0.5 mg/ml of HeLa lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.



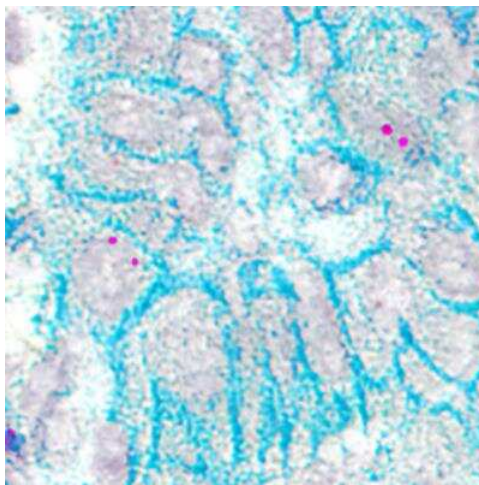
Flow Cytometry: CD4 Antibody TA336736 - An intracellular stain was performed on U937 cells with CD4 Antibody [TA336736G] (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to DyLight 488.



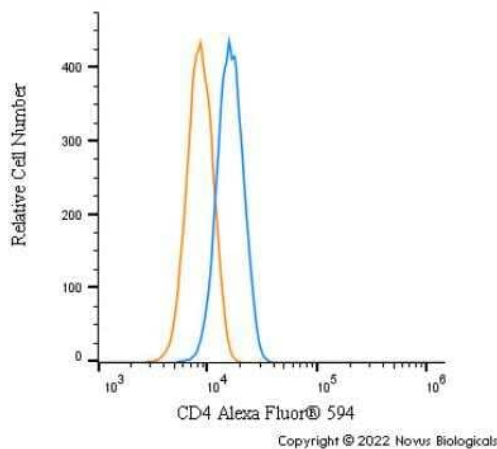
Dual RNAscope ISH-IHC: CD4 Antibody TA336736 - CCR5 mRNA (red) and CD4 protein (green) were detected in formalin-fixed paraffin-embedded tissue sections of human lung cancer. ACD's Integrated Co-Detection Workflow was performed using ACD RNAscope Probe Hs-CCR5 and CD4 antibody at 1:100 dilution. Tissue was stained on Leica Bond RX using RNAscope (TM) 2.5 LS Reagent Kit-RED, BOND Polymer Refine Detection (DAB) and Hematoxylin, BOND Polymer Refine Red Detection and Hematoxylin and RNAscope (TM) 2.5 LS Green Accessory Pack. Tissue was counterstained with 50% hematoxylin (blue).



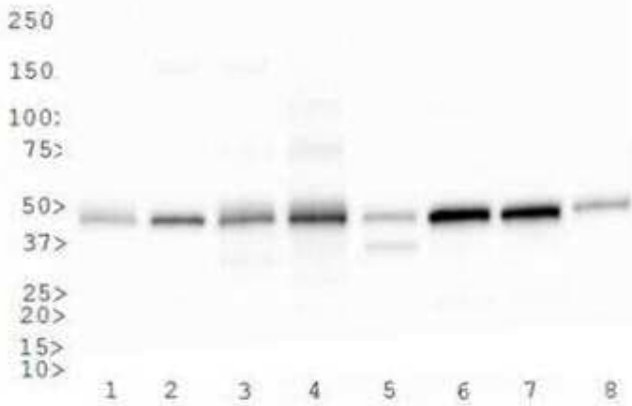
Flow Cytometry: CD4 Antibody TA336736 - An intracellular stain was performed on Jurkat cells with CD4 Antibody TA336736R (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to DyLight 550.



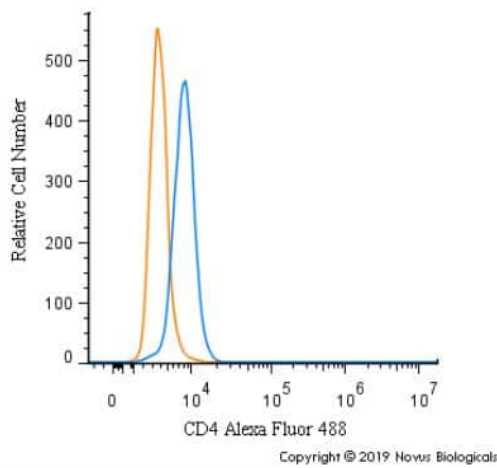
Dual RNAscope ISH-IHC: CD4 Antibody TA336736 - IFNG mRNA (red) and CD4 protein (green) were detected in formalin-fixed paraffin-embedded tissue sections of human lung cancer. ACD's Integrated Co-Detection Workflow was performed using ACD RNAscope Probe Hs-IFNG and CD4 antibody at 1:100 dilution. Tissue was stained on Leica Bond RX using RNAscope (TM) 2.5 LS Reagent Kit-RED, BOND Polymer Refine Detection (DAB) and Hematoxylin (Cat. No. DS9800), BOND Polymer Refine Red Detection and Hematoxylin and RNAscope (TM) 2.5 LS Green Accessory Pack. Tissue was counterstained with 50% hematoxylin (blue).



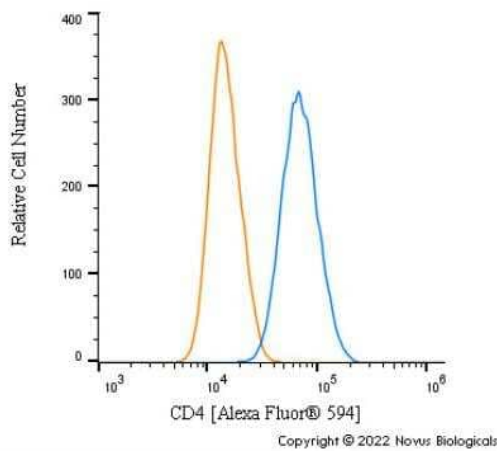
Flow Cytometry: CD4 Antibody TA336736 - An intracellular stain was performed on U937 cells with CD4 Antibody TA336736AF594 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 2.5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 594.



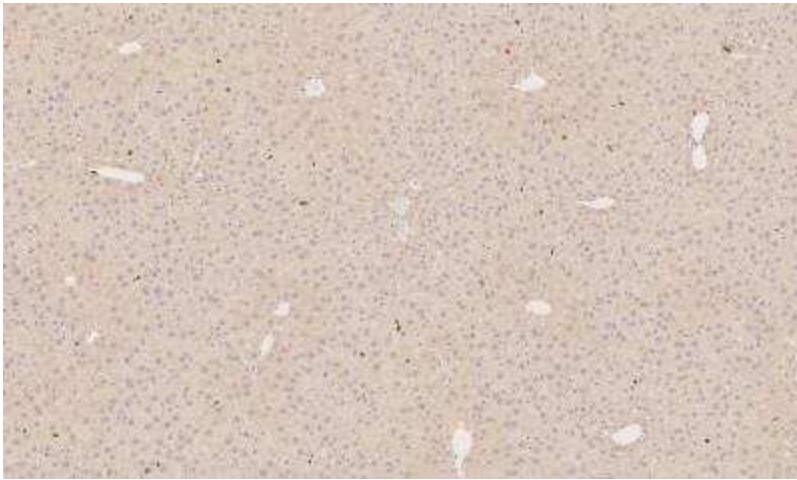
Western Blot: CD4 Antibody TA336736 - CD4 antibody was tested in the following cell lysates: 1) human spleen 2) human tonsil 3) human placenta 4) human kidney 5) human liver 6) mouse spleen 7) mouse placenta 8) rat placenta.



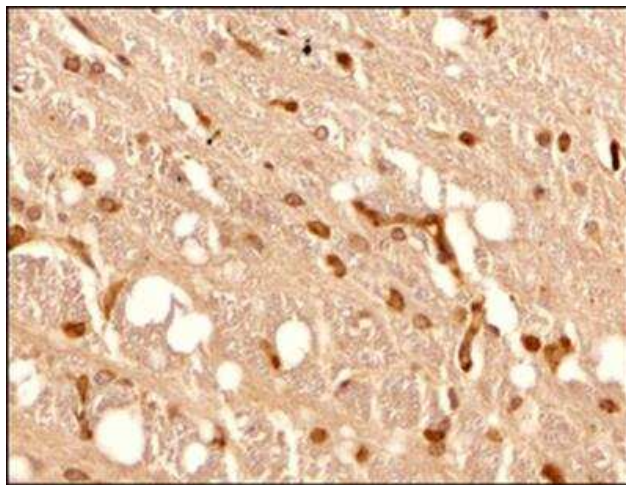
Flow Cytometry: CD4 Antibody TA336736 - An intracellular stain was performed on Jurkat cells with CD4 Antibody TA336736AF488 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 10 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 488.



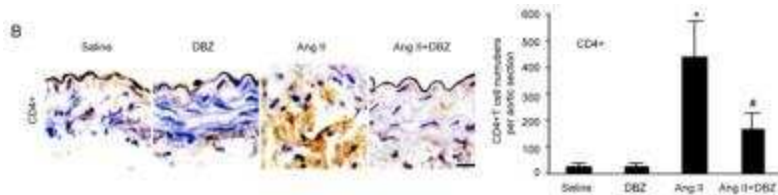
Flow Cytometry: CD4 Antibody - BSA Free TA336736 - An intracellular stain was performed on U-251 MG cells with CD4 Antibody TA336736AF594 (blue) and a matched isotype control NBP2-24891 (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 2.5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 594.



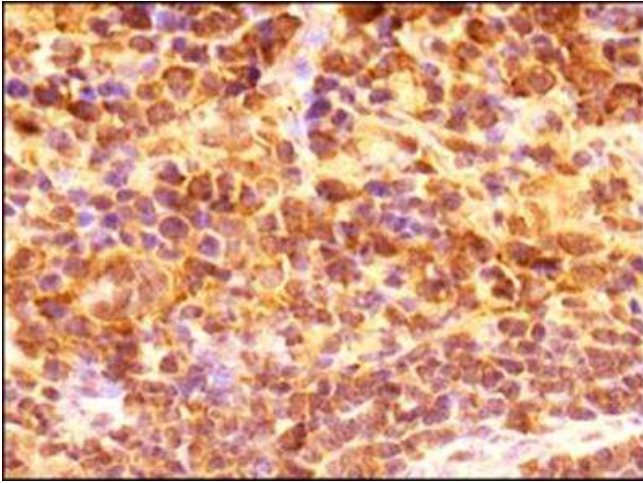
Immunohistochemistry-Frozen: CD4 Antibody TA336736 - Staining in mouse liver tissue.



Immunohistochemistry-Paraffin: CD4 Antibody TA336736 - Analysis of a FFPE tissue section of mouse brain using CD4 antibody at 1:300 dilution with HRP-DAB detection and hematoxylin counterstaining. The antibody primarily generated a strong signal in the membranes of a subset of cells in the tested section.



Immunohistochemistry: CD4 Antibody TA336736 - DBZ inhibits the accumulation of CD4+ T cells and Th2 differentiation in the AAAs. (B) The representation of immunohistochemical staining for CD4+ in abdominal aorta from four groups (left). Bar graphs show the percentage of CD4+ positive cell areas (right; n=3 per group). Bar: 50 um.



Immunohistochemistry-Paraffin: CD4 Antibody TA336736 - Analysis of a FFPE section of mouse spleen using CD4 antibody at 1:300 dilution with HRP-DAB detection and hematoxylin counterstaining. The antibody generated a strong signal in the membranes of a subset of cells in the spleen section and the staining showed punctate appearance in some cells.