

DESCRIPTION

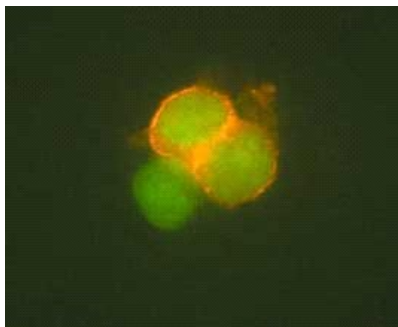
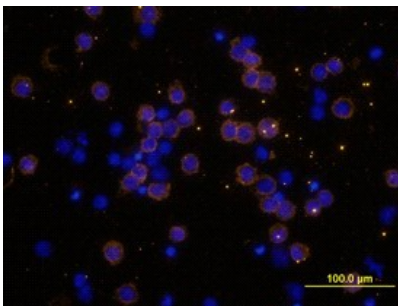
Species Reactivity	Human
Specificity	Detects human CD4 in direct ELISAs and Western blots. In direct ELISAs, less than 5% cross-reactivity with recombinant mouse CD4, recombinant feline CD4, recombinant cotton rat CD4, recombinant rat CD4, and recombinant canine CD4 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human CD4 Lys26-Trp390 Accession # P01730
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Human CD4 (Catalog # 514-CD)
Immunocytochemistry	5-15 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	Immersion fixed paraffin-embedded sections of human tonsil

DATA

<p>Immunocytochemistry</p>  <p>CD4 in Human T Cells. CD4 was detected in immersion fixed human T cells using 2 µg/mL Goat Anti-Human CD4 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-379-NA) for 3 hours at room temperature. Cells were stained (red) and counterstained (green). View our protocol for Fluorescent ICC Staining of Cells on Coverslips.</p>	<p>Immunocytochemistry</p>  <p>CD4 in Human PBMCs. CD4 was detected in immersion fixed human peripheral blood mononuclear cells (PBMCs) using Goat Anti-Human CD4 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-379-NA) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (yellow; Catalog # NL001) and counterstained with DAPI (blue). View our protocol for Fluorescent ICC Staining of Non-adherent Cells.</p>
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PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

CD4 is an approximately 55 kDa type I membrane glycoprotein that is expressed predominantly on most thymocytes and a subset of mature T lymphocytes. In humans, CD4 is also expressed to a lesser extent on monocytes and macrophage related cells. Human CD4 cDNA encodes a 458 amino acid (aa) residue precursor protein with a 25 aa residue signal peptide, a 371 aa residue extracellular region containing four immunoglobulin homology domains, a 24 aa residue transmembrane domain and a 38 aa residue cytoplasmic domain. CD4 is a coreceptor required for T cell recognition of antigens that are presented by class II major histocompatibility complexes. CD4 has been shown to be a coreceptor of HIV entry and specifically binds gp120, the external envelope glycoprotein of HIV.

References:

1. Capon, D.I. *et al.* (1991) *Annu. Rev. Immunol.* **9**:649.