Human CD4 Alexa Fluor® 594-conjugated Antibody

Monoclonal Mouse IgG_{2A} Clone # 11830
Catalog Number: FAB3791T
100 Tests, 25 Tests

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CD4 in direct ELISAs and Western blots. Does not cross-react with recombinant mouse CD4.
Source	Monoclonal Mouse IgG_{2A} Clone # 11830
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Recombinant human CD4 Extracellular domain Accession # P01730
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

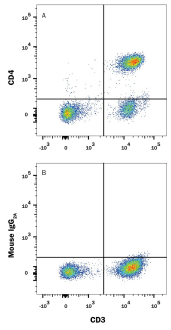
APPLICATIONS

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
Flow Cytometry	5 µL/10^6 cells	See Below

DATA

Flow Cytometry



Detection of CD4 in Human Blood Lymphocytes by Flow Cytometry. Human peripheral blood mononuclear cells (PBMCs) were stained with Mouse Anti-Human CD3e APC-conjugated Monoclonal Antibody (Catalog # Catalog # FAB100A) and either (A) Mouse Anti-Human CD4 Alexa Fluor® 594-conjugated Monoclonal Antibody (Catalog # FAB3791T) or (B) Mouse IgG_{2A} Alexa Fluor 594 Isotype Control (Catalog # Catalog # IC003T). View our protocol for Staining Membrane-associated Proteins.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Protect from light. Do not freeze.** • 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

CD4 is a 54-60 kDa type I transmembrane glycoprotein that belongs to the immunoglobulin superfamily. It is expressed predominantly on hematopoietic cells such as T cells, monocytes and Langerhans cells. T cells known to be positive for CD4 include Th1, Th2, Th17, Th22, Th9, Tfh and Treg subsets, plus select thymocytes. CD4 exists as either an oxidized monomer (3 internal disulfide bonds), a reduced monomer (2 internal disulfide bonds) and a disulfide-linked dimer. CD4 functions in collaboration with the T cell receptor in the recognition of peptide antigens that are presented by class II major histocompatibility complexes. In particular, CD4 in its dimeric form binds to the MHC complex at non-polymorphic sites. Monomeric CD4 has also been shown to be a coreceptor for HIV entry and specifically to bind gp120, the external envelope glycoprotein of HIV. Over amino acids (aa) 26-396 (the extracellular domain), human and mouse CD4 share 58% aa sequence identity.

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