Human CTLA-4 PE-conjugated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: FAB386P
100 TESTS

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CTLA-4 in direct ELISAs and Western blots. In Western blots, approximately 25% cross-reactivity with recombinant mouse CTLA-4 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*S. frugiperda* insect ovarian cell line *Sf* 21-derived recombinant human CTLA-4 Ala37-Phe162 Accession # Q6GR94
Conjugate	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 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.

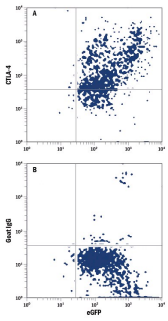
APPLICATIONS

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	10 µL/10^6 cells	See Below

DATA

Flow Cytometry



Detection of CTLA-4 in NS0 Mouse Cell Line Transfected with Human CTLA-4 and eGFP by Flow Cytometry. NS0 mouse myeloma cell line transfected with human CTLA-4 and eGFP was stained with (A) Goat Anti-Human CTLA-4 PE-conjugated Antigen Affinity-purified Polyclonal Antibody (Catalog # FAB386P) and (B) Normal Goat IgG Phycoerythrin Control (Catalog # IC108P). 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

CTLA-4 and CD28, together with their ligands B7-1 and B7-2, constitute one of the dominant costimulatory pathways that regulate T- and B-cell responses. CTLA-4 and CD28 are structurally homologous molecules that are members of the immunoglobulin (Ig) gene superfamily. Both CTLA-4 and CD28 are composed of a single Ig V–like extracellular domain, a transmembrane domain and an intracellular domain. CTLA-4 and CD28 are both expressed on the cell surface as disulfide-linked homodimers or as monomers. The genes encoding these two molecules are closely linked on human chromosome 2. CTLA-4 was originally identified as a gene that was specifically expressed by cytotoxic T lymphocytes. However, CTLA-4 transcripts have since been found in both Th1 and Th2, and $CD4^+$ and $CD8^+$ T cell clones. Whereas CD28 expression is constitutive on the surfaces of 95% of $CD4^+$ T cells and 50% of $CD8^+$ T cells and is down regulated upon T cell activation, CTLA-4 expression is upregulated rapidly following T cell activation and peaks approximately 24 hours following activation. Although both CTLA-4 and CD28 can bind to the same ligands, CTLA-4 binds to B7-1 and B7-2 with 20–100–fold higher affinity than CD28. The physiological role of CTLA-4 in T cell costimulation is currently being studied.

References:

1. Lenschow, D.J. *et al.* (1996) Annu. Rev. Immunol. **14**:233.
2. Hathcock, K.S. and R.J. Hodes (1996) Advances in Immunol. **62**:131.
3. Ward, S.G. (1996) Biochem. J. **318**:361.