

DESCRIPTION

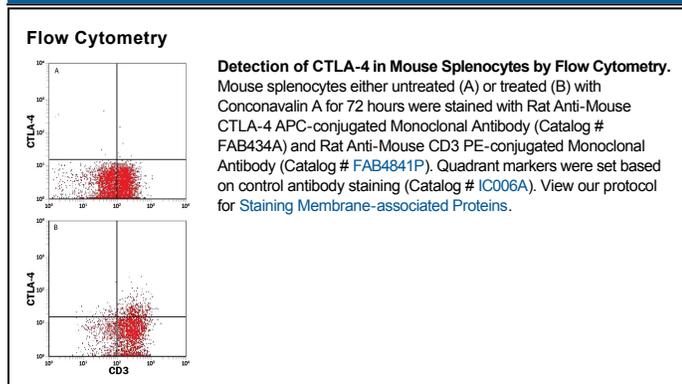
Species Reactivity	Mouse
Specificity	Detects mouse CTLA-4 in direct ELISAs and Western blots. In direct ELISAs, this antibody does not cross-react with recombinant mouse (rm) CD28, recombinant human CTLA-4, rmlCOS, or rmPD-1.
Source	Monoclonal Rat IgG _{2A} Clone # 63828
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse CTLA-4 Ala36-Phe161 Accession # XP_001479180
Conjugate	Allophycocyanin Excitation Wavelength: 620-650 nm Emission Wavelength: 660-670 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 μ L/10 ⁶ cells	See Below

DATA



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. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

CTLA-4 (also known as CD152) 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 is expressed on the cell surface as either a disulfide-linked homodimer or a 24-26 kDa monomer. 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 contextually defined. Full-length CTLA-4, when induced and activated, sends an inhibitory signal to the expressing T cell. It also promotes the development of T_c17 cells. Tregs constitutively express CTLA-4, a phenotype that is essential to their function. Over amino acids (aa) 36-161, mouse CTLA-4 shares 94% and 67% aa sequence identity with rat and human CTLA-4, respectively.