10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

CTLA4 Antibody [2G10]

Catalog # ASC12128

Product Information

Application	WB, IHC-P, IF, ICC, E
Primary Accession	P16410
Other Accession	NP_005205
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Clone Names	CTLA4
Calculated MW	24656

Additional Information

Gene ID	1493
Alias Symbol	CTLA4
Other Names	CTLA-4 Antibody: CTL4, cytotoxic T-lymphocyte associated protein 4, CD, GSE, GRD4, ALPS5, CD152, IDDM12, CELIAC3
Reconstitution & Storage	CTLA-4 antibody can be stored at 4˚C for three months and -20˚C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	CTLA4 Antibody [2G10] is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CTLA4
Synonyms	CD152
Function	Inhibitory receptor acting as a major negative regulator of T-cell responses (PubMed:11279501, PubMed:11279502, PubMed:16551244, PubMed:1714933, PubMed:18641304, PubMed:28484017). Acts as a decoy receptor: the affinity of CTLA4 for its natural B7 family ligands, CD80 and CD86, is considerably stronger than the affinity of their cognate stimulatory coreceptor CD28 (PubMed:11279501, PubMed:11279502, PubMed:16551244, PubMed:1714933, PubMed:28484017).
Cellular Location	Cell membrane; Single-pass type I membrane protein. Note=Exists primarily an intracellular antigen whose surface expression is tightly regulated by restricted trafficking to the cell surface and rapid internalization
Tissue Location	Widely expressed with highest levels in lymphoid tissues. Detected in

activated T-cells where expression levels are 30- to 50-fold less than CD28, the stimulatory coreceptor, on the cell surface following activation.

Background

The cytotoxic T-lymphocyte-associated protein 4 (CTLA-4), also known as CD152, is a member of the immunoglobulin superfamily that is expressed by activated T cells and transmits an inhibitory signal to T cells (1,2). Both it and the homologous T-cell co-stimulatory protein CD28 bind to CD80 (B7-H1) and CD86 (B7-H2) on antigen-presenting cells (APCs) (3). Mutations in the CTLA-4 gene have been implicated in multiple autoimmune diseases (4). CTLA-4 also functions as an immune checkpoint protein, and anti- CTLA-4 antibodies have been successfully used in the treatment of cancer (5).

References

Brunet JF, Denizot F, Luciani MF, et al. A new member of the immunoglobulin superfamily--CTLA-4 . Nature 1987; 328:267–70.Walunas TL, Lenschow DJ, Bakker CY, et al. CTLA-4 can function as a negative regulator of T cell activation. Immunity 1994; 1:405–13.Harding FA, McArthur JG, Gross JA, et al. CD28-mediated signalling co-stimulates murine T cells and prevents induction of anergy in T-cell clones. Nature 1992; 356:607–9.Romo-Tena J, Gomez-Martin D, and Alcocer-Verela J. CTLA-4 and autoimmunity: new insights into the dual regulator of tolerance. Autoimmun. Rev. 2013; 12:117.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.