Anti-Human CTLA-4 Antibody [PSH08-14] - BSA and Azide free (Detector)

HA722955

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	ELISA(Det)
Clone number:	PSH08-14

Description: Inhibitory receptor acting as a major negative regulator of T-cell responses. 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. A chronic, relapsing, inflammatory, and often febrile multisystemic disorder of connective tissue, characterized principally by involvement of the skin, joints, kidneys and serosal membranes. It is of unknown etiology, but is thought to represent a failure of the regulatory mechanisms of the autoimmune system. The disease is marked by a wide range of system dysfunctions, an elevated erythrocyte sedimentation rate, and the formation of LE cells in the blood or bone marrow. A multifactorial disorder of glucose homeostasis that is characterized by susceptibility to ketoacidosis in the absence of insulin therapy. Clinical features are polydipsia, polyphagia and polyuria which result from hyperglycemia-induced osmotic diuresis and secondary thirst. These derangements result in long-term complications that affect the eyes, kidneys, nerves, and blood vessels. A multifactorial, chronic disorder of the small intestine caused by intolerance to gluten. It is characterized by immune-mediated enteropathy associated with failed intestinal absorption, and malnutrition. In predisposed individuals, the ingestion of gluten-containing food such as wheat and rye induces a flat jejunal mucosa with infiltration of lymphocytes.

Immunogen:	Recombinant protein within Human CTLA-4 aa 36-161.
Positive control:	Recombinant Human CTLA-4 protein (HA210885).
Subcellular location:	Cell membrane.
Database links:	SwissProt: P16410 Human
Recommended Dilutions:	
ELISA(Det)	Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit monoclonal [PSH08-13] to Human CTLA-4 antibody (Capture) (HA722954) and recombinant Human CTLA-4 protein as the standard (HA210885). The reference range value is 8.2-2,000 pg/ml.
Storage Buffer:	PBS (pH7.4).
Storage Instruction:	Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.
Purity:	Protein A affinity purified.

Images

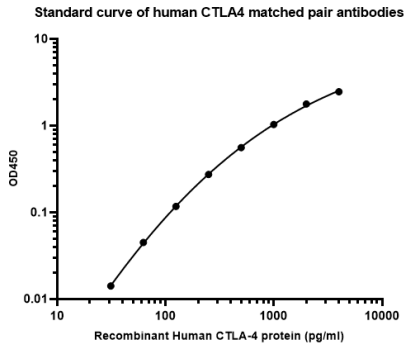

Fig1: Sandwich ELISA analysis of human CTLA-4 matched pair antibodies

Elisa assay was performed by coating wells of a 96-well plate with 100 µl per well of capture antibody (HA722954) diluted in carbonate/bicarbonate buffer, at a concentration of 2 µg/ml overnight at 4℃. Wells of the plate were washed, blocked with 150 µl 0.05% tween-20 1%BSA blocking buffer, and incubated with serial diluted recombinant Human CTLA-4 protein (HA210885) starting from 4000 pg/ml to 0 pg/ml and detect antibody (HA722954, Biotin, 0.2 µg/ml) for 1 hour at 30℃ with shaking. Then the plate was washed and incubated with 100 µl per well of SA-HRP for 0.5 hour at 30℃ with shaking. Detection was performed using an Ultra TMB Substrate for 10 minutes at room temperature in the dark. The reaction was stopped with sulfuric acid and absorbances were read on a spectrophotometer at 450 nm.

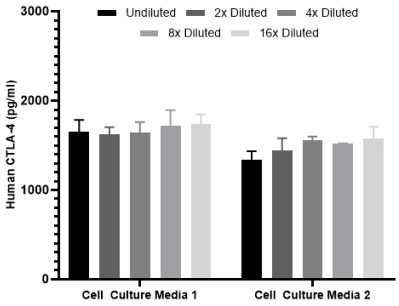

Fig2: Interpolated concentrations of spiked CTLA-4 in cell culture media samples.

The concentrations of CTLA-4 were measured in duplicates, interpolated from the CTLA-4 standard curves and corrected for sample dilution. Undiluted samples are as follows: cell culture media 50%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2).

Background References

1. Teft W.A., Kirchhof M.G., Madrenas J. A molecular perspective of CTLA-4 function. Annu. Rev. Immunol. 24:65-97 (2006)
2. Linsley P.S., Brady W., Urnes M., Griosmaire L.S., Damle N.K., Ledbetter J.A. CTLA-4 is a second receptor for the B cell activation antigen B7.