abcam

Product datasheet

Anti-CTLA4 antibody [EPR21972-205] - BSA and Azide free ab237017



2 Images

Overview

Product name Anti-CTLA4 antibody [EPR21972-205] - BSA and Azide free

Description Rabbit monoclonal [EPR21972-205] to CTLA4 - BSA and Azide free

Host species Rabbit

Tested applications Suitable for: Flow Cyt Reacts with: Mouse **Species reactivity**

Immunogen Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.

Positive control Flow Cyt: Mouse primary splenocytes treated with ConA.

General notes ab237017 is the carrier-free version of ab224295.

> Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.

This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cellbased assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar[®] is a trademark of Fluidigm Canada Inc.

This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free production

For more information see here.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb**® **patents**.

Properties

Form Liquid

Storage instructions Shipped at 4°C. Store at +4°C. Do Not Freeze.

Storage buffer pH: 7.2

Constituent: PBS

Carrier free Yes

Purity Protein A purified

Clonality Monoclonal

Clone number EPR21972-205

Isotype IgG

Applications

The Abpromise quarantee Our Abpromise quarantee covers the use of ab237017 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt		Use at an assay dependent concentration.

Target

Function 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.

Tissue specificity 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.

Involvement in disease Genetic variation in CTLA4 influences susceptibility to systemic lupus erythematosus (SLE)

[MIM:152700]. SLE is a chronic, inflammatory and often febrile multisystemic disorder of connective tissue. It affects principally the skin, joints, kidneys and serosal membranes. SLE is

thought to represent a failure of the regulatory mechanisms of the autoimmune system. Note=Genetic variations in CTLA4 may influence susceptibility to Graves disease, an

autoimmune disorder associated with overactivity of the thyroid gland and hyperthyroidism.

Genetic variation in CTLA4 is the cause of susceptibility to diabetes mellitus insulin-dependent type 12 (IDDM12) [MIM:601388]. A multifactorial disorder of glucose homeostasis that is

characterized by susceptibility to ketoacidosis in the absence of insulin therapy. Clinical fetaures 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.

Genetic variation in CTLA4 is the cause of susceptibility to celiac disease type 3 (CELIAC3) [MIM:609755]. It is a multifactorial disorder of the small intestine that is influenced by both environmental and genetic factors. It is characterized by malabsorption resulting from inflammatory injury to the mucosa of the small intestine after the ingestion of wheat gluten or related rye and barley proteins. In its classic form, celiac disease is characterized in children by

malabsorption and failure to thrive.

Sequence similarities Contains 1 lg-like V-type (immunoglobulin-like) domain.

Post-translational N-glycosylation is important for dimerization.

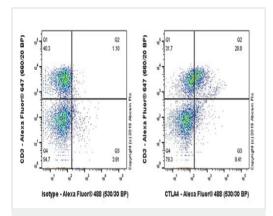
modifications Phosphorylation at Tyr-201 prevents binding to the AP-2 adapter complex, blocks endocytosis,

and leads to retention of CTLA4 on the cell surface.

Cellular localizationCell membrane. Exists primarily an intracellular antigen whose surface expression is tightly

regulated by restricted trafficking to the cell surface and rapid internalisation and.

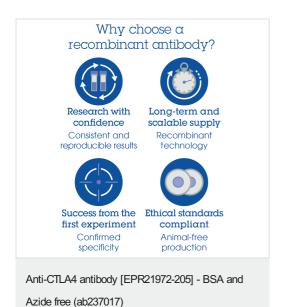
Images



Flow Cytometry - Anti-CTLA4 antibody [EPR21972-205] - BSA and Azide free (ab237017) Flow cytometric analysis of mouse primary splenocytes treated with ConA (2.5 μ g/ml, 3 days) labeling CTLA4 with <u>ab224295</u> at 1/100 dilution (Right panel) compared with a Rabbit lgG, monoclonal [EPR25A] - Isotype Control (<u>ab172730</u>) (Left panel). Goat anti rabbit lgG (Alexa Fluor[®] 488, <u>ab150077</u>) at 1/2000 dilution was used as the secondary antibody.

A low level of CTLA4 is expected to be on the cell surface; the majority is intracellular, localized to secretory lysosomes (PMID: 11046036). Gated on viable cells.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab224295).



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