abcam

ab119857

Anti-CD86 antibody [GL-1]

Anti-CD86 antibody [GL-1] (ab119857) is a rat monoclonal antibody detecting CD86 in **Flow Cytometry, ICC/IF**. Suitable for **Mouse**.

- Over 30 publications

Key facts

Isotype	IgG2a
Host species	Rat
Storage buffer	pH: 7.2 Preservative: 0.09% Sodium azide Constituents: 0.87% Sodium chloride, 0.14% Sodium dihydrogen phosphate
Form	Liquid
Clonality	Monoclonal
Immunogen	Cell preparation containing Cd86 protein. The exact immunogen used to generate this antibody is proprietary information. Database link P42082
Clone number	GL-1
Purification technique	Affinity purification
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	This purified format is guaranteed to be >90% pure as determined by SDS-PAGE analysis.

Reactivity data

Flow Cyt

Expected

Species	Mouse

Dilution info	-
Notes	ab18450 - Rat monoclonal IgG2a, is suitable for use as an isotype control with this antibody.

ICC/IF

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-Fr

Not recommended

Species	Mouse
Dilution info	-
Notes	-

Target data

See full target information Cd86

Function Costimulatory molecule that belongs to the immunoglobulin superfamily that plays an important role in T-lymphocyte activation (By similarity). Acts as the primary auxiliary signal augmenting the MHC/TCR signal in naive T-cells by acting as a ligand for the CD28 receptor which is constitutively expressed on the cell surface of T-cells (By similarity). May play a critical role in the early events of T-cell activation and costimulation of naive T-cells, such as deciding between immunity and anergy that is made by T-cells within 24 hours after activation (By similarity). Also involved in the regulation of B cells function, plays a role in regulating the level of IgG(1) produced (PubMed:23241883). Upon CD40 engagement, activates NF-kappa-B signaling pathway via phospholipase C and protein kinase C activation (PubMed:23241883). Also acts as an inhibitor of T-cell activation by acting as a ligand for CTLA4, a decoy receptor, thereby blocking CD28-mediated T-cell priming (PubMed:7504059, PubMed:7513726).

Storage

Shipped at conditions Blue Ice

Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze, Store undiluted

Notes

What is this antibody validated in?
Anti-CD86 antibody [GL-1] (ab119857) is a rat monoclonal antibody and is validated for use in Flow Cytometry (Flow Cyt), Immunocytochemistry/immunofluorescence (ICC/IF), Immunohistochemistry (Frozen sections) (IHC-Fr) in Mouse samples.

Trusted by the scientific community
Anti-CD86 [GL-1] (ab119857) was first used in a scientific publication in 2011 and has been cited over 30 times in peer-reviewed journals.

Other related products
We have a range of other formats of antibody clone [GL-1] also available for your convenience: ab119857, FITC - ab234237

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	CD86 also known as B7-2 is a protein involved in the regulation of the immune response. It has an approximate mass of 70 kDa and is expressed on antigen-presenting cells like dendritic cells monocytes and macrophages. Notably CD86 is present on macrophages including those in tissues such as skin and lymphoid organs. Expressed on these cells CD86 serves as a vital mediator in the co-stimulatory signals necessary for T cell activation and survival.
Biological function summary	CD86 plays a significant role in the immune system by providing secondary signals for T cell activation and differentiation. It is a part of the B7 protein family and forms a complex with CD28 and CTLA-4 on T cells. When CD86 binds to CD28 it sends positive co-stimulatory signals which promote T cell proliferation and cytokine production. On the other hand interaction with CTLA-4 transmits an inhibitory signal which reduces immune response. This dual interaction helps to balance immune activation and tolerance.
Pathways	CD86 takes part in important immune-related signaling pathways particularly the T cell receptor signaling pathway and the PI3K-Akt signaling pathway. Both pathways are fundamental for initiating immune responses. CD86's interaction with CD28 activates downstream signaling cascades including PI3K-Akt which is important for cell survival and growth. Additionally CD86 collaborates with other proteins such as CD80 another co-stimulatory molecule to amplify T cell activation within these pathways.

Associated diseases and disorders	CD86 is associated with autoimmune diseases and transplant rejection. In autoimmune diseases like rheumatoid arthritis the overexpression or dysregulation of CD86 can lead to excessive T cell activation causing immune system attacks on the body's own tissues. Similarly in transplant rejection CD86 may contribute by enhancing immune response against transplanted organs. The engagement between CD86 and CD28 is a critical factor in these conditions and therapies targeting this interaction are under exploration to mitigate the immune response.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

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