abcam

ab240534

Anti-CD83 antibody [HB15e] - BSA and Azide free

Recombinant

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	HB15e
Purification technique	Affinity purification Protein A
Concentration	0.966 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	ab123494 is >95% pure as determined by SDS-PAGE.

Reactivity data

WB

Not recommended

Species	Human, Mouse, Rat
Dilution info	-

Notes	-

IHC-P

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information CD83

Function	Transmembrane glycoprotein predominantly found on the surface of many immune cells including dendritic cells or lymphocytes that plays various roles in

immune response regulation. Plays an essential role in CD4(+) T-selection, differentiation and stability by regulating the activity of the major E3 ubiquitin ligase responsible for controlling MHCII trafficking MARCHF8. Also inhibits MARCHF1 association with MHCII or CD86 to prevent their ubiquitination and subsequent degradation (PubMed:21220452). In addition, acts as an important modulator of protective responses against acute infections (By similarity).

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

Notes

ab240534 is the carrier-free version of ab123494.
What are the advantages of a recombinant monoclonal antibody?
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 batch production

For more information, read more on recombinant antibodies.

Want a custom formulation?
This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact orders@abcam.com

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based 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.

Compatibility
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.

Supplementary info

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

Activity summary	CD83 also known as 3D11 in some contexts is a protein with important roles in the immune system. The CD83 protein is a glycoprotein with a molecular mass of approximately 45 kDa. It is expressed in various immune cells including dendritic cells B cells thymic epithelial cells and activated T cells. CD83 acts as a surface marker during the maturation and activation of these cells. This characteristic makes it a useful marker in immunological studies often referred to by scientists as the CD83 marker.
Biological function summary	The primary role of CD83 involves the regulation of immune responses. It functions by modulating the activity and communication of immune cells especially impacting the antigen-presenting capabilities of dendritic cells. CD83 also plays a role in promoting the maturation of these cells and influencing T-cell responses. Although CD83 is not generally recognized as a part of a complex its interactions with other cell surface molecules are significant for immune system function.
Pathways	CD83 has notable involvement in immune signaling pathways including the NF-kB and JAK/STAT pathways. These pathways are critical for transmitting signals that influence cell survival proliferation and activation. Through these pathways CD83 interacts with proteins such as cytokines and growth factors which further modulate their effects on immune cells and their responses.
Associated diseases and disorders	Understanding CD83's role provides insights into conditions like autoimmune diseases and immune deficiencies. In autoimmune diseases irregular expression or function of CD83 can disrupt normal immune response contributing to pathogenesis. Its relationship with other proteins such as CD28 in T-cell activation underlies its involvement in disorders characterized by immune dysregulation. Furthermore CD83 expression profiles may help decipher cancer immune evasion mechanisms providing possible therapeutic targets.

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

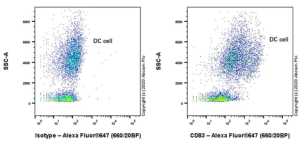
We do not recommend this combination. It is not covered by our product promise.

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.

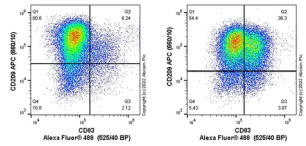
Full details and terms and conditions can be found here:
Terms & Conditions.

2 product images



Flow Cytometry - Anti-CD83 antibody [HB15e] - BSA and Azide free (ab240534)

This data was developed using ab123494, the same antibody clone in a different buffer formulation. Flow Cytometry analysis of human peripheral blood mononuclear cell (PBMC) treated with 100ng/ml GM-CSF and 50ng/ml IL-4 for 3 days then change new medium (100ng/ml GM-CSF and 50ng/ml IL-4) for another 3 days (right panel) compared to mouse monoclonal IgG isotype control (left panel). ab123494 used at a 1/400 dilution. Secondary is Goat Anti-Mouse IgG (Alexa Fluor® 647, ab150119) used at a 1/2000 dilution. Gated on viable cells. Bright secondary antibody like Alexa Fluor®647 conjugated ones are recommended to get desirable signal.



Flow Cytometry - Anti-CD83 antibody [HB15e] - BSA and Azide free (ab240534)

CD83 Flow Cytometry staining using mouse Anti-CD83 antibody

This data was developed using ab123494, the same antibody clone in a different buffer formulation.

Flow Cytometry analysis of human monocyte-derived dendritic cells treated with 100ng/mL Lipopolysaccharide (LPS) for 24 hours (Right) / Untreated control (Left).

ab123494 used at a 1/1000 dilution.

Secondary is Goat anti-Mouse IgG (Alexa Fluor® 488, ab150113) used at a 1/2000 dilution.

The cells were simultaneously stained with CD209. Acquisition of >30000 events were collected using a 50 mW Blue laser (488nm) and 525/40 bandpass filter.

Events were gated on viable single cells.

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