abcam

ab256285

Alexa Fluor® 488 Anti-CD53 antibody [MRC OX-44]

Anti-CD53 antibody [MRC OX-44] conjugated to Alexa Fluor® 488 - suitable for flow cytometry, and reacts with rat samples. Clone [MRC OX-44] is a mouse monoclonal antibody.

Design your panel with our interactive flow cytometry panel builder. Click here.

Key facts

Isotype	IgG1
Host species	Mouse
Conjugation	Alexa Fluor® 488
Excitation/Emission	Ex: 495nm, Em: 519nm
Storage buffer	Preservative: 0.02% Sodium azide Constituents: PBS, 30% Glycerol (glycerin, glycerine), 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	MRC OX-44
Purification technique	Affinity purification
Light chain type	kappa
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from TCS.

Reactivity data

Flow Cyt

Tested

Species	Rat
Dilution info	1/100
Notes	-

Target data

See full target information Cd53

Function	Required for efficient formation of myofibers in regenerating muscle at the level of cell fusion. May be involved in growth regulation in hematopoietic cells (By similarity).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle, Stable for 12 months at -20°C, Store in the dark

Notes

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Supplementary info

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

Activity summary	CD53 also known as Tetraspanin-25 is a transmembrane glycoprotein with a molecular mass of approximately 35-40 kDa. It belongs to the tetraspanin family characterized by four transmembrane domains. CD53 primarily resides on the surface of leukocytes including B cells T cells natural killer cells and macrophages. This protein plays an important role in signal transduction processes by organizing proteins on the cell membrane and forming tetraspanin-enriched microdomains.
Biological function summary	CD53 plays a significant role in regulating immune responses cell development and migration. It does not work alone but as part of larger protein complexes that influence cell communication and inter-organizational responses. CD53 participates in organizing membrane proteins into functional complexes which impacts cellular processes such as adhesion signaling and cellular activation. Its interaction with other proteins is critical to maintain normal immune system functionality and responding appropriately to infections.
Pathways	CD53 is involved in the regulation of immune signaling and cellular communication networks. It is a component of the tetraspanin web which influences the integrin and immunoreceptor pathways two important signaling pathways in cellular communication. Proteins such as CD9 and CD81 also members of the tetraspanin family frequently interact with CD53 suggesting cooperative roles in modulating cellular adhesion and trafficking processes critical for immune response.
Associated diseases and disorders	CD53 shows a connection to immune system dysfunctions including autoimmune conditions and certain types of cancer. Its altered expression can contribute to abnormal immune responses seen in diseases like systemic lupus erythematosus (SLE) and lymphoma. In these disorders CD53's interaction with CD19 and other B-cell-associated proteins plays a part in abnormal cell signaling leading to issues in cell proliferation or miscommunication within the immune system.

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.

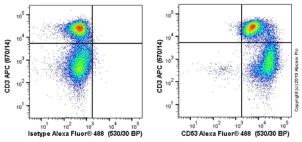
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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1 product image



Flow Cytometry - Alexa Fluor® 488 Anti-CD53 antibody [MRC OX-44] (ab256285)

CD53 Flow Cytometry staining using mouse Anti-CD53 antibody

Lewis rat splenocytes stained with ab256285 (right) or mouse IgG1κ Alexa Fluor® 488 isotype (left). Lewis rat splenocytes were incubated for 30 min on ice in 1x PBS / 10 % rat serum to block FC receptors and non-specific protein-protein interaction followed by the antibody (ab256285) or mouse IgG1κ Alexa Fluor® 488 isotype (1x 10^6 in 100 µl at 5 µg/ml (1/100)) for 30 min on ice. The cells were simultaneously stained with CD3.
Acquisition of >30,000 events were collected using a 50 mW Blue laser (488nm) and 530/30 bandpass filter. Events were gated on viable lymphocytes.

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