abcam

ab95763

PE Anti-CD103 antibody [OX62]

Anti-CD103 antibody [OX62] conjugated to PE - suitable for flow cytometry, and reacts with rat samples. Clone [OX62] is a mouse monoclonal antibody cited in 6 publications.

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Key facts

Isotype	IgG1
Host species	Mouse
Conjugation	PE
Excitation/Emission	Ex: 480;565nm, Em: 578nm
Storage buffer	pH: 7.2 Preservative: 0.09% Sodium azide
Form	Liquid
Clonality	Monoclonal
Immunogen	Cell preparation containing ITGAE protein. The exact immunogen used to generate this antibody is proprietary information.
Clone number	OX62
Purification technique	Affinity purification Protein G

Reactivity data

Flow Cyt

Tested

Species	Rat
Dilution info	0.125-0.25 µg for 10^5 Cells

Notes	Cell number should be determined empirically but can range from 105 to 108 cells/test (based on a test volume of 100 µl). ab91357 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Target data

See full target information ITGAE

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Supplementary info

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

Activity summary	CD103 also known as ITGAE or integrin alpha E is a protein subunit that pairs with integrin beta 7 (ItgB7) to form a complete heterodimer known as the αEβ7 integrin complex. This protein typically weighs around 150 kDa. CD103 is mainly expressed on the surface of certain T lymphocytes such as CD8+ T cells in mucosal tissues and also in a subset of dendritic cells. Through its mechanical function CD103 mediates cell adhesion by specifically binding to E-cadherin on epithelial cells. This interaction facilitates the retention and positioning of lymphocytes in epithelial tissues.
Biological function summary	CD103 is essential for establishing and maintaining interactions between immune cells and epithelial cells. By incorporating into the αEβ7 integrin complex it plays an important role in the localization of intraepithelial lymphocytes and dendritic cells in the gut mucosa and skin contributing to immune surveillance and protection of these barriers. CD103 helps to control lymphocyte activation and the migration process offering a critical surface marker for identifying tissue-resident memory T cells (Trm cells) and discerning their functional potential.
Pathways	CD103 functions prominently in the immunological environment by participating in pathways that regulate lymphocyte adherence and migration. Two significant pathways it fits into include the T-cell homing and retention pathways and the antigen presentation pathway. Through these pathways CD103 interacts with molecules such as E-cadherin and impacts the movement of T cells to epithelial sites influencing tissue-specific immune responses alongside related proteins like integrin beta 7 which forms a part of the same integrin complex.

Associated diseases and disorders	CD103 has a significant connection with inflammatory and autoimmune conditions particularly in the context of inflammatory bowel disease and certain types of cancer such as colorectal cancer. Its association with E-cadherin through the integrin complex affects cellular behavior in these diseases contributing to either barrier integrity or breakdown and abnormal immune cell infiltration. Additionally in the disease context CD103 can influence interactions with proteins that regulate immune responses and tumor surveillance highlighting its role in disease progression and therapeutic potential.

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

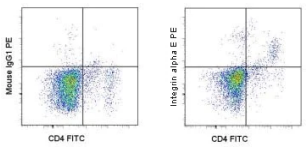
We do not recommend this combination. It is not covered by our product promise.

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1 product image



Flow Cytometry - PE Anti-CD103 antibody [OX62] (ab95763)

CD103 Flow Cytometry staining using mouse Anti-CD103 antibody

Flow cytometry staining of rat splenocytes with Anti-Rat CD4 FITC and 0.125 µg of Mouse IgG1 kappa Isotype Control PE (left) or 0.125 µg of ab95763 (right). Cells in the lymphocyte gate were used for analysis and events are displayed after gating out CD3+ T cells and CD45RB+ cells and gating on the remaining cells, which are MHC Class II+.

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