abcam

ab245746

Anti-CD103 antibody [SP301] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
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	SP301
Purification technique	Affinity purification Protein A/G
Concentration	1.035 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from TCS by protein A/G.

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	-

Notes	Incubate with primary antibody for 30 minutes at 4°C.

IHC-P

Tested

Species	Human
Dilution info	-
Notes	Boil tissue section in EDTA buffer, pH 8.0 for 10 minutes followed by cooling at room temperature for 20 minutes.Incubate for 10 minutes at room temperature.

IHC-Fr

Tested

Species	Human
Dilution info	10 µg/mL
Notes	-

Target data

See full target information ITGAE

Function	Integrin ITGAE/ITGB7 (alpha-E/beta-7) is a receptor for E-cadherin. It mediates adhesion of intra-epithelial T-lymphocytes to epithelial cell monolayers.

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

ab245746 is the carrier-free version of ab227697.

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

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.

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	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

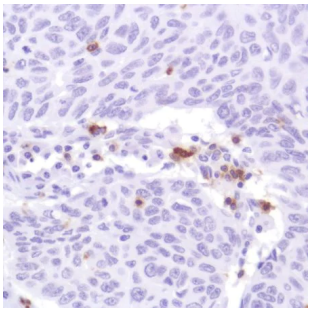
We do not recommend this combination. It is not covered by our product promise.

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.

15 product images

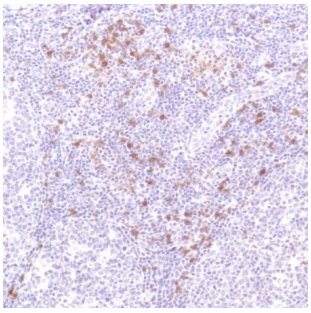


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD103 antibody [SP301] - BSA and Azide free (ab245746)

CD103 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CD103 antibody

Formalin-fixed, paraffin-embedded human tonsil tissue stained for CD103 with ab227697 at 1/100 dilution in immunohistochemical analysis.

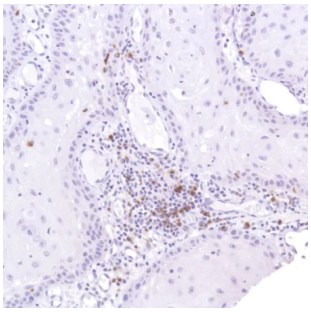
This data was developed using the same antibody clone in a different buffer formulation containing PBS#44; BSA#44; and sodium azide (ab227697)



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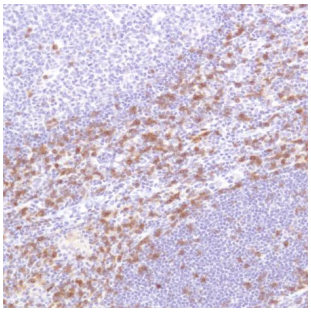


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CD103 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CD103 antibody

Formalin-fixed, paraffin-embedded human cervix tissue stained for CD103 with ab227697 at 1/100 dilution in immunohistochemical analysis.

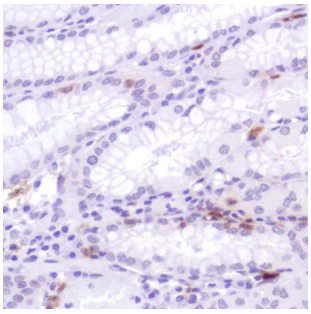
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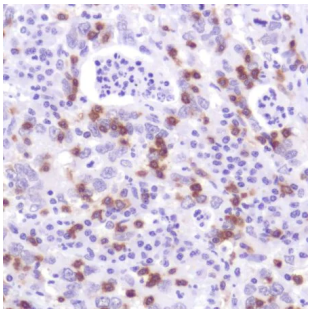


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD103 antibody [SP301] - BSA and Azide free (ab245746)

CD103 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CD103 antibody

Formalin-fixed, paraffin-embedded human colon tissue stained for CD103 with ab227697 at 1/100 dilution in immunohistochemical analysis.

This data was developed using the same antibody clone in a different buffer formulation containing PBS#44; BSA#44; and sodium azide (ab227697)

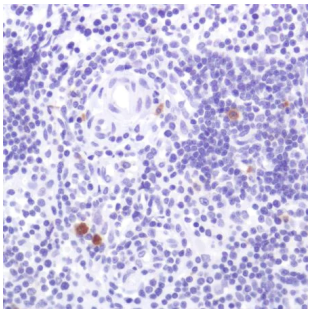


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD103 antibody [SP301] - BSA and Azide free (ab245746)

CD103 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CD103 antibody

Formalin-fixed, paraffin-embedded human breast tissue stained for CD103 with ab227697 at 1/100 dilution in immunohistochemical analysis.

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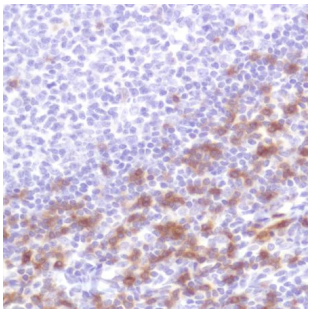


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CD103 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CD103 antibody

Formalin-fixed, paraffin-embedded human tonsil tissue stained for CD103 with ab227697 at 1/100 dilution in immunohistochemical analysis.

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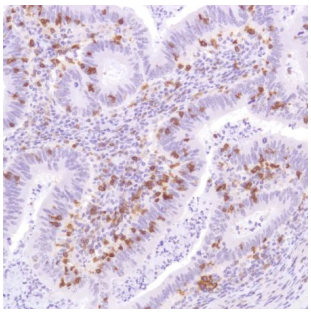


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD103 antibody [SP301] - BSA and Azide free (ab245746)

CD103 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CD103 antibody

Formalin-fixed, paraffin-embedded human thymus tissue stained for CD103 with ab227697 at 1/100 dilution in immunohistochemical analysis.

This data was developed using the same antibody clone in a different buffer formulation containing PBS#44; BSA#44; and sodium azide (ab227697)

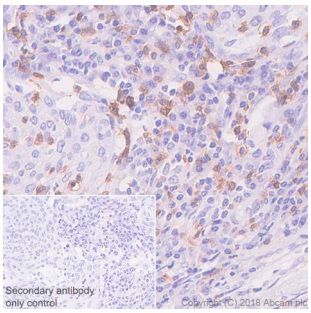


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD103 antibody [SP301] - BSA and Azide free (ab245746)

CD103 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CD103 antibody

Formalin-fixed, paraffin-embedded human colon adenocarcinoma tissue stained for CD103 with ab227697 at 1/100 dilution in immunohistochemical analysis.

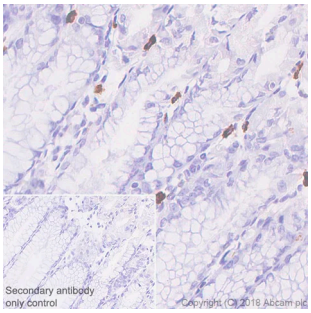
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CD103 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CD103 antibody

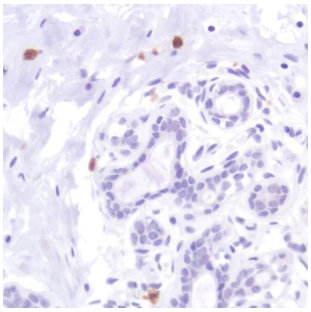
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human cervical carcinoma tissue sections labeling CD103 with ab227697 at 1/100 dilution (3.99 µg/ml). Heat mediated antigen retrieval was performed Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 10 mins. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab227697)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD103 antibody [SP301] - BSA and Azide free (ab245746)

CD103 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CD103 antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human stomach tissue sections labeling CD103 with ab227697 at 1/100 dilution (3.99 µg/ml). Heat mediated antigen retrieval was performed Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 10 mins. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab227697)

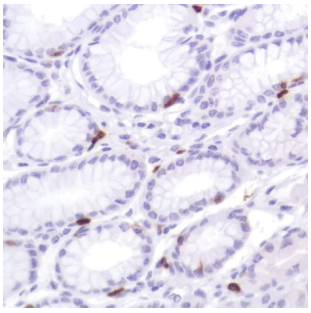


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD103 antibody [SP301] - BSA and Azide free (ab245746)

CD103 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CD103 antibody

Formalin-fixed, paraffin-embedded human stomach adenocarcinoma carcinoma tissue stained for CD103 with ab227697 at 1/100 dilution in immunohistochemical analysis.

This data was developed using the same antibody clone in a different buffer formulation containing PBS#44; BSA#44; and sodium azide (ab227697)

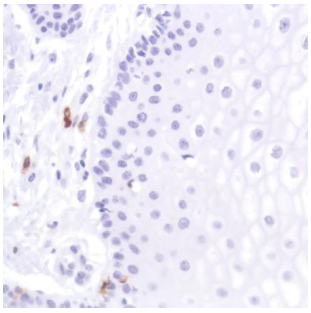


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD103 antibody [SP301] - BSA and Azide free (ab245746)

CD103 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CD103 antibody

Formalin-fixed, paraffin-embedded human stomach tissue stained for CD103 with ab227697 at 1/100 dilution in immunohistochemical analysis.

This data was developed using the same antibody clone in a different buffer formulation containing PBS#44; BSA#44; and sodium azide (ab227697)

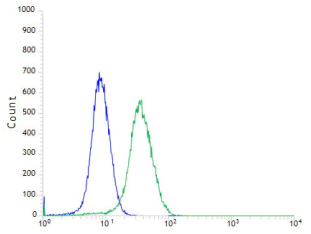


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD103 antibody [SP301] - BSA and Azide free (ab245746)

CD103 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CD103 antibody

Formalin-fixed, paraffin-embedded human skin squamous cell carcinoma tissue stained for CD103 with ab227697 at 1/100 dilution in immunohistochemical analysis.

This data was developed using the same antibody clone in a different buffer formulation containing PBS#44; BSA#44; and sodium azide (ab227697)



Flow Cytometry - Anti-CD103 antibody [SP301] - BSA and Azide free (ab245746)

Flow cytometric analysis of Jurkat (human T cell leukemia T lymphocyte) cells labeling CD103 with ab227697 at 1/100 dilution (green) compared with a negative control rabbit IgG (blue).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA and sodium azide (ab227697).

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