


Product datasheet

Anti-CD13 antibody [SP187] ab227663

Recombinant **RabMAb**

[1 References](#) [16 Images](#)

Overview

Product name	Anti-CD13 antibody [SP187]
Description	Rabbit monoclonal [SP187] to CD13
Host species	Rabbit
Tested applications	Suitable for: ICC/IF, WB, Flow Cyt, IHC-P
Species reactivity	Reacts with: Human Predicted to work with: Rabbit 
Immunogen	Synthetic peptide within Human CD13 aa 100-200 (internal sequence). The exact sequence is proprietary. Database link: P15144
Positive control	WB: U937 cell lysate. Flow Cyt: U937 cells. IHC-P: Human kidney, tonsil, spleen, thymus, lung, liver, placenta, bladder, bone marrow, reactive lymph node, HK lymphoma and B-cell lymphoma tissues. ICC/IF: THP-1 cells
General notes	<p>This product is FOR RESEARCH USE ONLY. For commercial use, please contact partnerships@abcam.com.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.</p> <p>Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.</p> <p>We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.</p> <p>In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.</p>

We are also updating the applications & species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, as well as customer reviews and Q&As.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.60 Preservative: 0.1% Sodium azide Constituents: PBS, 1% BSA
Purity	Immunogen affinity purified
Purification notes	Purified from TCS by protein A/G.
Clonality	Monoclonal
Clone number	SP187
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab227663** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		1/25.
WB		1/400. Predicted molecular weight: 109 kDa.
Flow Cyt		1/100.
IHC-P		1/100. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Target

Function	Broad specificity aminopeptidase. Plays a role in the final digestion of peptides generated from hydrolysis of proteins by gastric and pancreatic proteases. May play a critical role in the pathogenesis of cholesterol gallstone disease. May be involved in the metabolism of regulatory peptides of diverse cell types including small intestinal and tubular epithelial cells, macrophages,
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granulocytes and synaptic membranes from the CNS. Found to cleave antigen peptides bound to major histocompatibility complex class II molecules of presenting cells and to degrade neurotransmitters at synaptic junctions. Is also implicated as a regulator of IL-8 bioavailability in the endometrium, and therefore may contribute to the regulation of angiogenesis. Is used as a marker for acute myeloid leukemia and plays a role in tumor invasion. In case of human coronavirus 229E (HCoV-229E) infection, serves as receptor for HCoV-229E spike glycoprotein. Mediates as well human cytomegalovirus (HCMV) infection.

Tissue specificity

Expressed in epithelial cells of the kidney, intestine, and respiratory tract; granulocytes, monocytes, fibroblasts, endothelial cells, cerebral pericytes at the blood-brain barrier, synaptic membranes of cells in the CNS. Also expressed in endometrial stromal cells, but not in the endometrial glandular cells. Found in the vasculature of tissues that undergo angiogenesis and in malignant gliomas and lymph node metastases from multiple tumor types but not in blood vessels of normal tissues. A soluble form has been found in plasma. It is found to be elevated in plasma and effusions of cancer patients.

Sequence similarities

Belongs to the peptidase M1 family.

Domain

Amino acids 260-353 are essential to mediate susceptibility to infection with HCoV-229E (in porcine/human chimeric studies) and more specifically amino acids 288-295 (mutagenesis studies).

Post-translational modifications

Sulfated.

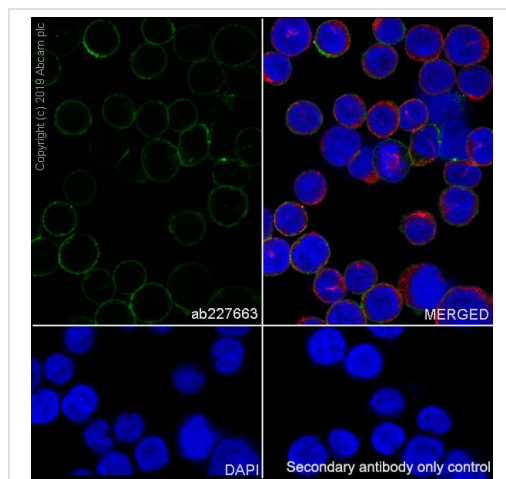
N- and O-glycosylated.

May undergo proteolysis and give rise to a soluble form.

Cellular localization

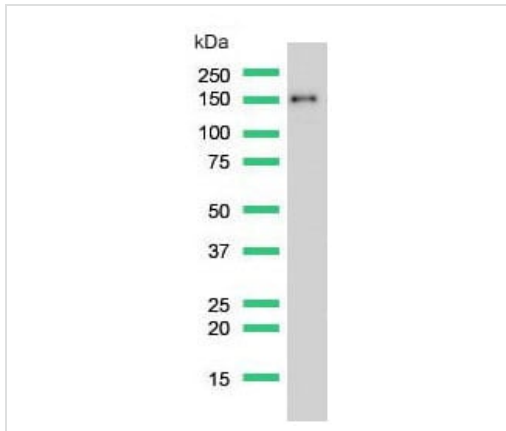
Cell membrane. Cytoplasm > cytosol. A soluble form has also been detected.

Images



Immunocytochemistry/ Immunofluorescence analysis of THP-1 (human monocytic leukemia monocyte) cells labeling CD13 with purified ab227663 at 1/25 (5.32µg/ml). Cells were fixed in 100% Methanol. Cells were counterstained with [ab195889](#) Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, [ab150077](#)) was used as the secondary antibody at 1/1000 (2 µg/ml) dilution. DAPI was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.

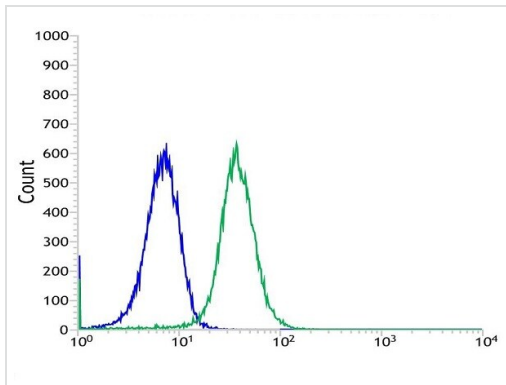
Immunocytochemistry/ Immunofluorescence - Anti-CD13 antibody [SP187] (ab227663)



Western blot - Anti-CD13 antibody [SP187]
(ab227663)

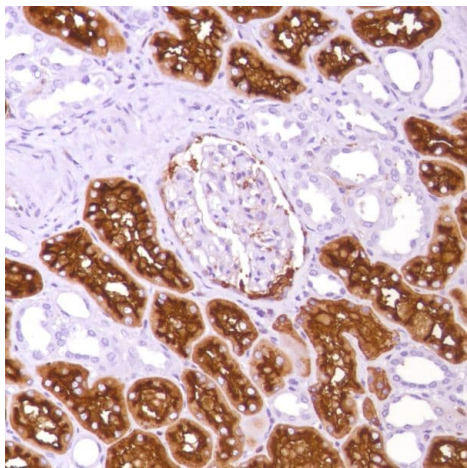
Anti-CD13 antibody [SP187] (ab227663) at 1/400 dilution + U937
(human histiocytic lymphoma cell line) cell lysate

Predicted band size: 109 kDa



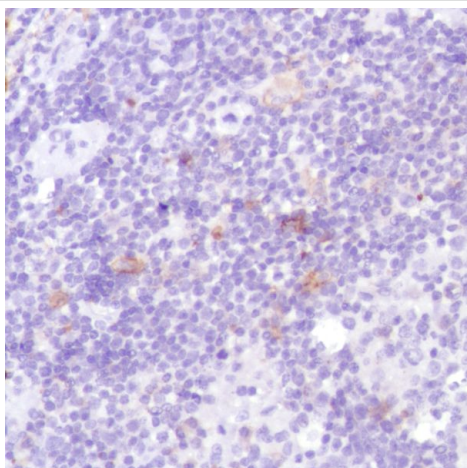
Flow Cytometry - Anti-CD13 antibody [SP187]
(ab227663)

Flow cytometric analysis of U937 (human histiocytic lymphoma cell
line) cell line labeling CD13 with ab227663 at 1/100 dilution (green)
compared with a Rabbit IgG negative control (blue).



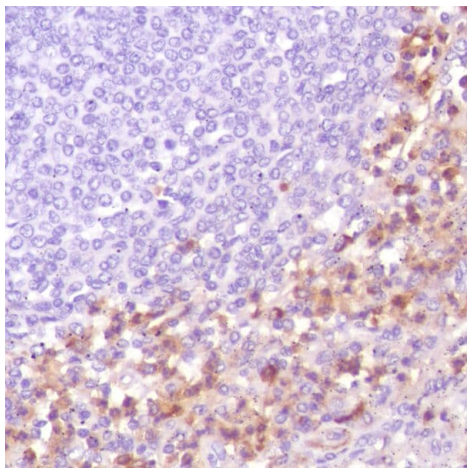
Formalin-fixed, paraffin-embedded human kidney tissue stained for CD13 using ab227663 at 1/100 dilution in immunohistochemical analysis.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD13 antibody [SP187] (ab227663)



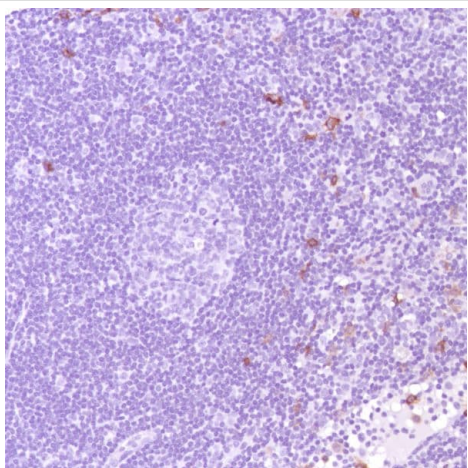
Formalin-fixed, paraffin-embedded human tonsil tissue stained for CD13 using ab227663 at 1/100 dilution in immunohistochemical analysis.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD13 antibody [SP187] (ab227663)



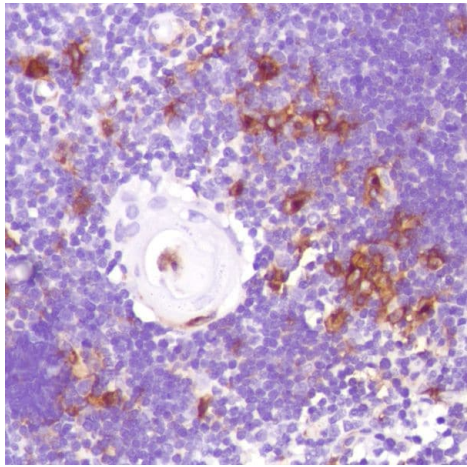
Formalin-fixed, paraffin-embedded human spleen tissue stained for CD13 using ab227663 at 1/100 dilution in immunohistochemical analysis.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD13 antibody [SP187] (ab227663)



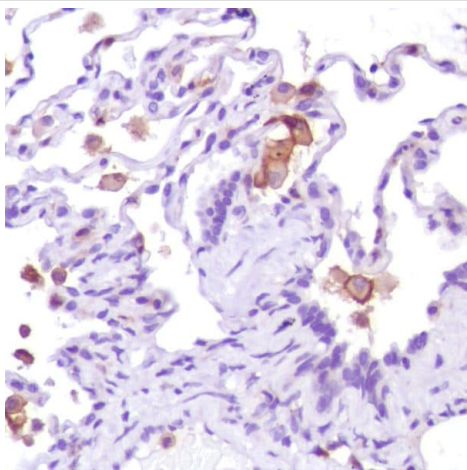
Formalin-fixed, paraffin-embedded human reactive lymph node tissue stained for CD13 using ab227663 at 1/100 dilution in immunohistochemical analysis.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD13 antibody [SP187] (ab227663)



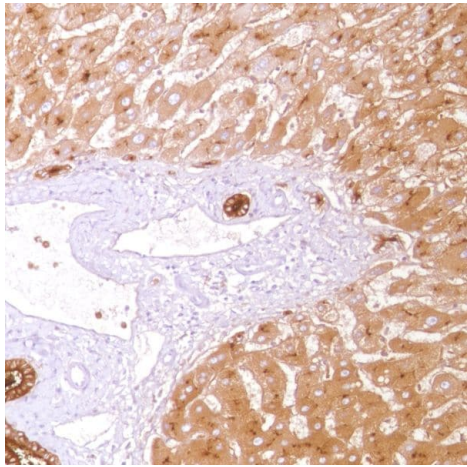
Formalin-fixed, paraffin-embedded human thymus tissue stained for CD13 using ab227663 at 1/100 dilution in immunohistochemical analysis.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD13 antibody [SP187] (ab227663)



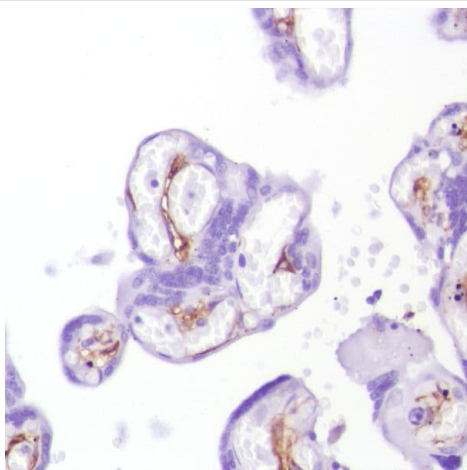
Formalin-fixed, paraffin-embedded human lung tissue stained for CD13 using ab227663 at 1/100 dilution in immunohistochemical analysis.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD13 antibody [SP187] (ab227663)



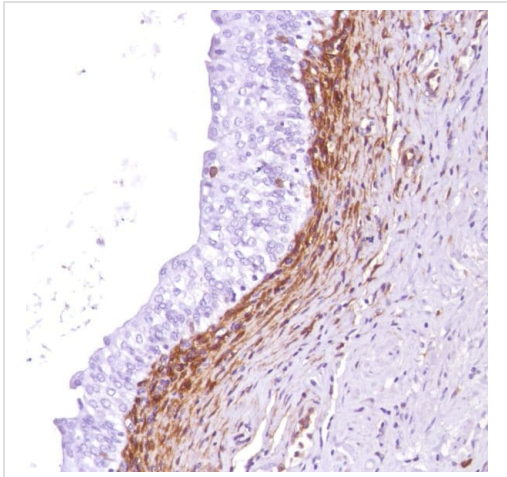
Formalin-fixed, paraffin-embedded human liver tissue stained for CD13 using ab227663 at 1/100 dilution in immunohistochemical analysis.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD13 antibody [SP187] (ab227663)



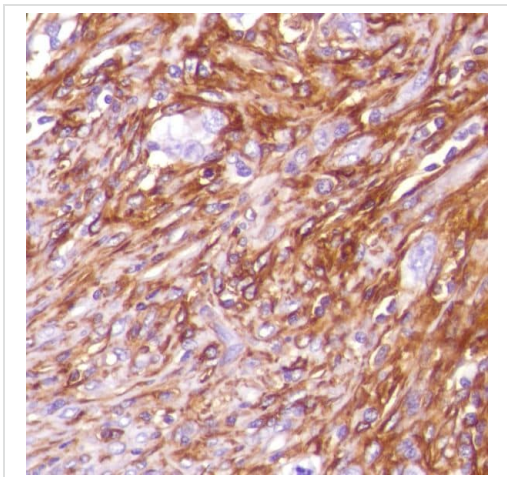
Formalin-fixed, paraffin-embedded human placenta tissue stained for CD13 using ab227663 at 1/100 dilution in immunohistochemical analysis.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD13 antibody [SP187] (ab227663)



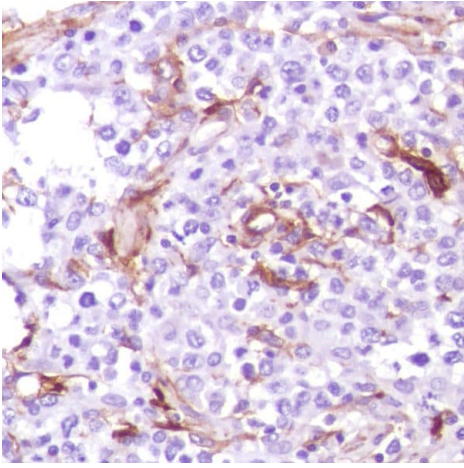
Formalin-fixed, paraffin-embedded human bladder tissue stained for CD13 using ab227663 at 1/100 dilution in immunohistochemical analysis.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD13 antibody [SP187] (ab227663)



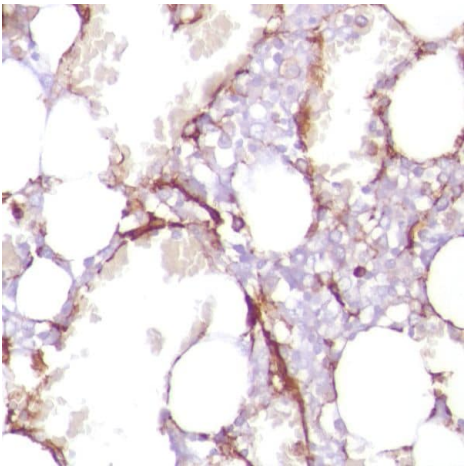
Formalin-fixed, paraffin-embedded human HK lymphoma tissue stained for CD13 using ab227663 at 1/100 dilution in immunohistochemical analysis.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD13 antibody [SP187] (ab227663)



Formalin-fixed, paraffin-embedded human B-cell lymphoma tissue stained for CD13 using ab227663 at 1/100 dilution in immunohistochemical analysis.





Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD13 antibody [SP187] (ab227663)



Formalin-fixed, paraffin-embedded human bone marrow tissue stained for CD13 using ab227663 at 1/100 dilution in immunohistochemical analysis.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD13 antibody [SP187] (ab227663)

Why choose a recombinant antibody?

 <p>Research with confidence Consistent and reproducible results</p>	 <p>Long-term and scalable supply Recombinant technology</p>
 <p>Success from the first experiment Confirmed specificity</p>	 <p>Ethical standards compliant Animal-free production</p>

Anti-CD13 antibody [SP187] (ab227663)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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