abcam

ab135377

Anti-CD15 antibody [SP159]

Anti-CD15 antibody [SP159] (ab135377) is a rabbit monoclonal antibody detecting CD15 in **Flow Cytometry, IHC-P, mIHC**. Suitable for **Human**.

- Multiplex IHC validated on the Leica BOND® MAX using Opal reagents
- Biophysical QC for unrivalled batch-batch consistency

Recombinant | RabMAb | Advanced Validation | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.1% Sodium azide Constituents: PBS, 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	SP159
Purification technique	Affinity purification Protein A
Concentration	0.144 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

IHC-P

Tested

Species	Human
Dilution info	1/50
Notes	Perform heat mediated antigen retrieval by boiling tissue section in 1mM EDTA buffer, pH 8.0 for 10 min followed by cooling at room temperature for 20 min. Incubate with primary antibody for 10 minutes at room temperature.

Not recommended

Species	Mouse
Dilution info	-
Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	1/50 - 1/2000
Notes	-

Not recommended

Species	Mouse
Dilution info	-
Notes	-

mIHC

Tested

Species	Human
Dilution info	1/50 - 1/2000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Not recommended

Species	Mouse
Dilution info	-
Notes	-

Target data

See full target information CD15

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

What is this antibody validated in?
Anti-CD15 antibody [SP159] (ab135377) is a rabbit recombinant monoclonal antibody and is validated for use in Flow Cytometry (Flow Cyt), Immunohistochemistry (IHC-P), Multiplex IHC (mIHC) in Human samples.

Collaboration
Anti-CD15 [SP159] (ab135377) is a clone from the portfolio of Spring Bioscience (Roche) SP clones which have been optimised for immunohistochemistry (IHC).

Other related products
We have a range of other formats of antibody clone [SP159] also available for your convenience: ab135377, Carrier free - ab240092, ab279458, Alexa Fluor® 488 - ab281581, Alexa Fluor® 555 - ab281744, Alexa Fluor® 647 - ab281929

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.

Supplementary info

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

Activity summary	CD15 also known as Lewis x or 3-fucosyl-N-acetyllactosamine is a carbohydrate antigen with a molecular mass typically not individually defined due to its nature as a glycan. CD15 is expressed on the surface of many human cells including neutrophils and various epithelial cells. It is commonly associated with granulocytes and is used as a cell surface marker. The presence of CD15 can be identified using CD15 antibodies through techniques such as CD15 flow cytometry and CD15 APC labeling.
Biological function summary	CD15 is important in cell-cell interaction mechanisms. It plays a role in mediating adhesion processes particularly in immune responses where it aids neutrophils in adhering to vascular endothelium and transmigrating to sites of infection or inflammation. As a glycoconjugate CD15 forms part of a larger glycoprotein complex on the cell surface interacting with other proteins to facilitate cellular responses and movement.
Pathways	CD15's function as an adhesion molecule ties into key cellular processes such as the selectin pathway. In this pathway it interacts with proteins like E-selectin and L-selectin contributing to leukocyte rolling and extravasation during the immune response. Additionally CD15 is implicated in the signaling pathways that mediate inflammatory responses where its role in neutrophil dynamics is important.
Associated diseases and disorders	CD15 has notable implications in Hodgkin's lymphoma and certain myeloid leukemias. It is frequently used as a diagnostic marker in these conditions where its overexpression or abnormal expression patterns may signify disease presence or progression. CD15's interaction with other proteins such as CD30 in Hodgkin's lymphoma highlights its utility in understanding the pathological mechanisms and potential therapeutic targets of these disorders.

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

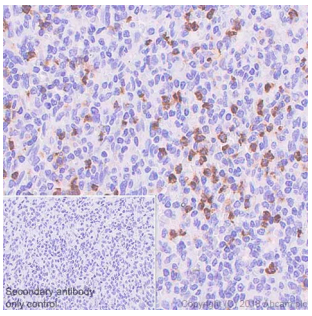
We do not recommend this combination. It is not covered by our product promise.

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.

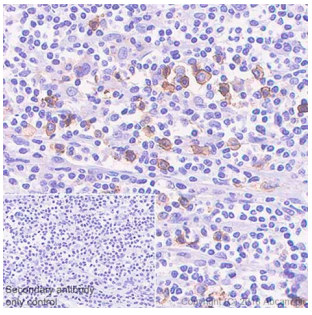
9 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD15 antibody [SP159] (ab135377)

CD15 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CD15 antibody

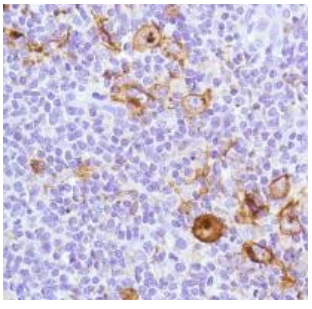
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human spleen tissue sections labeling CD15 with ab135377 at 1/50 dilution (3.14 µg/ml). Heat mediated antigen retrieval with Bond™ Epitope Retrieval Solution 2 (pH 9.0) for 10mins. Goat Anti-Rabbit & Mouse IgG (HRP) was used as the secondary antibody. Hematoxylin was used as a counterstain. Positive staining on the human spleen, performed on a Leica Biosystems BOND™ RX instrument. The section was incubated with ab135377 for 30 mins at room temperature.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD15 antibody [SP159] (ab135377)

CD15 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CD15 antibody

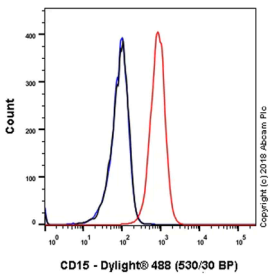
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human Hodgkin's lymphoma tissue sections labeling CD15 with ab135377 at 1/50 dilution (3.14 µg/ml). Heat mediated antigen retrieval with Bond™ Epitope Retrieval Solution 2 (pH 9.0) for 10mins. Goat Anti-Rabbit & Mouse IgG (HRP) was used as the secondary antibody. Hematoxylin was used as a counterstain. Positive staining on the human Hodgkin's lymphoma, performed on a Leica Biosystems BOND™ RX instrument.
The section was incubated with ab135377 for 30 mins at room temperature.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD15 antibody [SP159] (ab135377)

CD15 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CD15 antibody

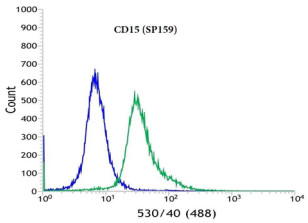
Immunohistochemical analysis of formalin-fixed, paraffin-embedded Human Hodgkin's Lymphoma tissue labelling CD15 with ab135377 at 1/100 dilution.



Flow Cytometry - Anti-CD15 antibody [SP159] (ab135377)

CD15 Flow Cytometry staining using rabbit Anti-CD15 antibody

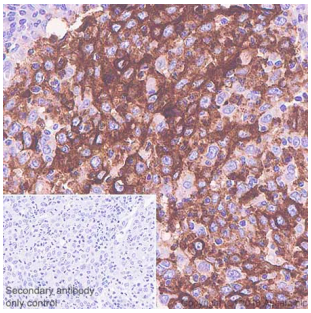
Flow cytometry analysis of THP-1 (human acute monocytic leukemia) labeling CD15 with purified ab135377 at 1/20 dilution (7.85 µg/ml) (red). Goat anti rabbit IgG (Alexa Fluor® 488, ab150081) at 1/2000 dilution was used as a secondary antibody. Isotype control - Rabbit monoclonal IgG (ab172730) (Black). Unlabeled control - Unlabelled cells (blue).



Flow Cytometry - Anti-CD15 antibody [SP159] (ab135377)

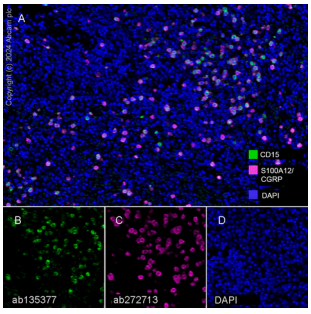
CD15 Flow Cytometry staining using rabbit Anti-CD15 antibody

Flow cytometric analysis of rabbit anti-CD15 (SP159) antibody ab135377 (1/200) in HL-60 cells(green) compared to negative control of rabbit IgG (blue).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD15 antibody [SP159] (ab135377)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human cervix carcinoma tissue sections labeling CD15 with ab135377 at 1/50 dilution (3.14 µg/ml). Heat mediated antigen retrieval with Bond™ Epitope Retrieval Solution 2 (pH 9.0) for 10mins. Goat Anti-Rabbit & Mouse IgG (HRP) was used as the secondary antibody. Hematoxylin was used as a counterstain. Positive staining on the human cervix carcinoma, performed on a Leica Biosystems BOND™ RX instrument.
The section was incubated with ab135377 for 30 mins at room temperature.



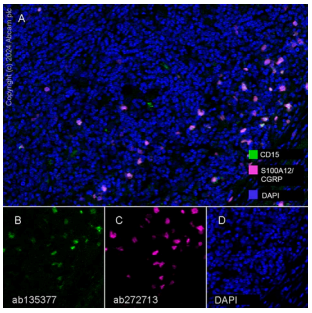
Multiplex immunohistochemistry - Anti-CD15 antibody [SP159] (ab135377)

Multiplex immunohistochemistry analysis of formalin/PFA-fixed paraffin-embedded human spleen tissue staining CD15 with ab135377 at a 1/50 dilution and ab272713 anti-S100A12/CGRP used at 1/5000 dilution. Opal Polymer HRP Ms + Rb was used as a secondary, and DAPI was used for a nuclear counter stain. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

Panel A: merged staining of anti-CD15 (green; Opal™520), anti-S100A12/CGRP (magenta; Opal™690) on human spleen.
Panel B: anti-CD15 stained granulocytes and monocytes on human spleen.
Panel C: anti-S100A12/CGRP stained neutrophils and monocytes on human spleen.
Panel D: Nuclear DNA was labeled with DAPI (shown in blue).

The section was incubated in three rounds of staining: in the order of ab135377 and ab272713 for 30 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope.



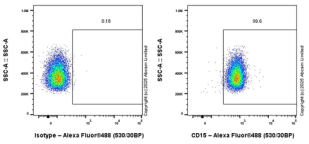
Multiplex immunohistochemistry - Anti-CD15 antibody [SP159] (ab135377)

Multiplex immunohistochemistry analysis of formalin/PFA-fixed paraffin-embedded human Hodgkin's lymphoma tissue staining CD15 with ab135377 at a 1/50 dilution and ab272713 anti-S100A12/CGRP used at 1/5000 dilution. Opal Polymer HRP Ms + Rb was used as a secondary, and DAPI was used for a nuclear counter stain. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

Panel A: merged staining of anti-CD15 (green; Opal™520) and anti-S100A12/CGRP (magenta; Opal™690) on human Hodgkin's lymphoma.
Panel B: anti-CD15 stained granulocytes and monocytes on human Hodgkin's lymphoma.
Panel C: anti-S100A12/CGRP stained neutrophils and monocytes on human Hodgkin's lymphoma.
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The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope.



Flow Cytometry - Anti-CD15 antibody [SP159] (ab135377)

Flow cytometric analysis of human neutrophils cells labelling CD15 with ab135377 at 1/2000 compared with a Rabbit monoclonal IgG (ab172730) / Left isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody).

Goat Anti-Rabbit IgG (Alexa Fluor® 488 (ab150081) at 1/5000 was used as the secondary antibody.

Gated on viable cells.

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