abcam

ab315802

Anti-CD34 antibody [EPR27432-54]

Recombinant | RabMAb | Advanced Validation | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR27432-54
Purification technique	Affinity purification Protein A
Concentration	0.524 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

mIHC

Tested

Species	Human
Dilution info	1/2000
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/500
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	1/500
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IP

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	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, Rat
Dilution info	-
Notes	-

Target data

See full target information CD34

Function	Possible adhesion molecule with a role in early hematopoiesis by mediating the attachment of stem cells to the bone marrow extracellular matrix or directly to stromal cells. Could act as a scaffold for the attachment of lineage specific glycans, allowing stem cells to bind to lectins expressed by stromal cells or other marrow components. Presents carbohydrate ligands to selectins.

Storage

Shipped at conditions	Conditional Ambient
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

Notes

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.

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.

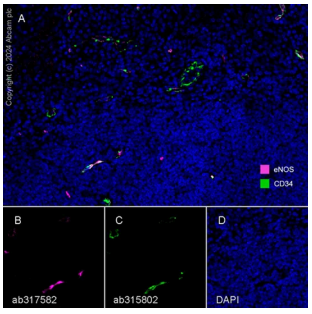
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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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16 product images



Multiplex immunohistochemistry - Anti-CD34 antibody [EPR27432-54] (ab315802)

Multiplex immunohistochemistry analysis of formalin/PFA-fixed paraffin-embedded human tonsil tissue staining eNOS with ab317582 at a 1:500 (1.032 ug/ml) dilution, ab315802 anti-CD34 used at 1:2000 (0.26 ug/ml) dilution.

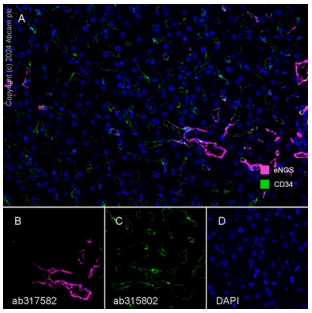
Panel A: merged staining of anti-eNOS (magenta; Opal™520), anti-CD34 (green; Opal™570) on human tonsil.
Panel B: anti-eNOS staining endothelium in human tonsil.
Panel C: anti-CD34 staining endothelium in human tonsil.
Panel D: Nuclear DNA was labeled with DAPI (shown in blue).

The section was incubated in three rounds of staining: in the order of ab317582 and ab315802 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.

Nuclear counter stain with DAPI.

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.



Multiplex immunohistochemistry - Anti-CD34 antibody [EPR27432-54] (ab315802)

Multiplex immunohistochemistry analysis of formalin/PFA-fixed paraffin-embedded human liver tissue staining eNOS with ab317582 at a 1:500 (1.032 ug/ml) dilution, ab315802 anti-CD34 used at 1:2000 (0.26 ug/ml) dilution.

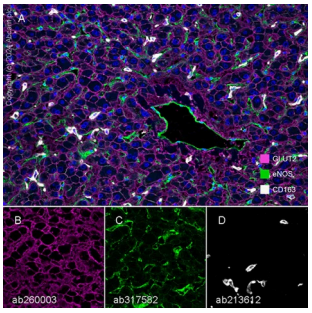
Panel A: merged staining of anti-eNOS (magenta; Opal™520), anti-CD34 (green; Opal™570) on human liver.
Panel B: anti-eNOS staining endothelium in human liver.
Panel C: anti-CD34 staining endothelium in human liver.
Panel D: Nuclear DNA was labeled with DAPI (shown in blue).

The section was incubated in three rounds of staining: in the order of ab317582 and ab315802 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.

Nuclear counter stain with DAPI.

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.



Multiplex immunohistochemistry - Anti-CD34 antibody [EPR27432-54] (ab315802)

Multiplex immunohistochemistry analysis of formalin/PFA-fixed paraffin-embedded human liver tissue staining eNOS with ab317582 at a 1:1000 (1.004 ug/ml) dilution, ab317582 anti-eNOS used at 1:500 (1.032 ug/ml) dilution and ab213612 anti-CD163 used at a 1:8000 (0.13 ug/ml) dilution.

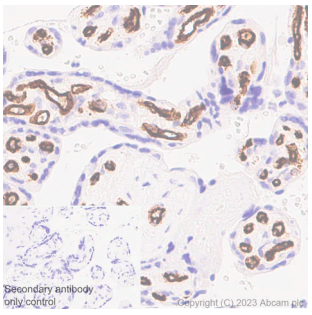
Panel A: merged staining of anti-GLUT2 (magenta; Opal™690), anti-eNOS (green; Opal™520) and anti-CD163 (gray; Opal™570) on human liver.
Panel B: anti-GLUT2 staining membrane of hepatocytes in human liver.
Panel C: anti-eNOS staining endothelium in human liver.
Panel D: anti-CD163 staining Kupffer cells in human liver.
Nuclear DNA was labeled with DAPI (shown in blue).

The section was incubated in three rounds of staining: in the order of ab260003, ab317582 and ab213612 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.

Nuclear counter stain with DAPI.

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD34 antibody [EPR27432-54] (ab315802)

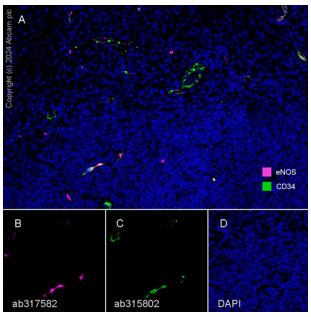
Immunohistochemical analysis of paraffin-embedded Human placenta tissue labeling CD34 with ab315802 at 1/2000 (0.262 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on endothelium of human placenta. The section was incubated with ab315802 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Multiplex immunohistochemistry - Anti-CD34 antibody [EPR27432-54] (ab315802)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human tonsil labelling eNOS with ab317582 at 1/500 (B) and CD34 with ab315802 at 1/2000 dilution (C). Opal Polymer HRP Ms + Rb was used as a secondary antibody. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

Panel A: merged staining of anti-eNOS (magenta; Opal™520), anti-CD34 (green; Opal™570) on human tonsil.

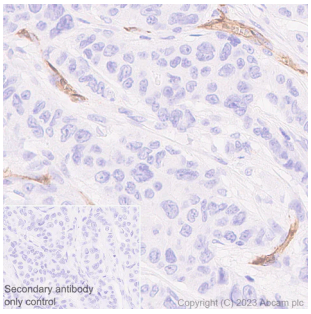
Panel B: anti-eNOS staining endothelium in human tonsil.

Panel C: anti-CD34 staining endothelium in human tonsil.

Panel D: Nuclear DNA was labeled with DAPI (shown in blue).

The section was incubated in three rounds of staining: in the order of ab317582 and ab315802 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.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD34 antibody [EPR27432-54] (ab315802)

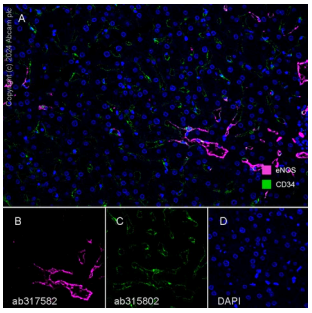
Immunohistochemical analysis of paraffin-embedded Human breast cancer tissue labeling CD34 with ab315802 at 1/2000 (0.262 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on endothelium of human breast cancer (PMID: 25803686). The section was incubated with ab315802 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Multiplex immunohistochemistry - Anti-CD34 antibody [EPR27432-54] (ab315802)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human liver labelling eNOS with ab317582 at 1/500 (B) and CD34 with ab315802 at 1/2000 dilution (C). Opal Polymer HRP Ms + Rb was used as a secondary antibody. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

Panel A: merged staining of anti-eNOS (magenta; Opal™520), anti-CD34 (green; Opal™570) on human liver.

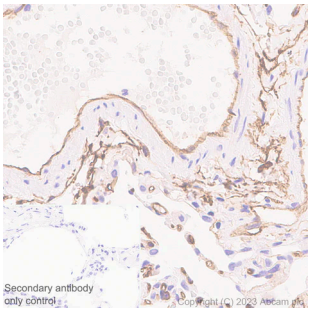
Panel B: anti-eNOS staining endothelium in human liver.

Panel C: anti-CD34 staining endothelium in human liver.

Panel D: Nuclear DNA was labeled with DAPI (shown in blue).

The section was incubated in three rounds of staining: in the order of ab317582 and ab315802 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.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD34 antibody [EPR27432-54] (ab315802)

Immunohistochemical analysis of paraffin-embedded Human lung tissue labeling CD34 with ab315802 at 1/2000 (0.262 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

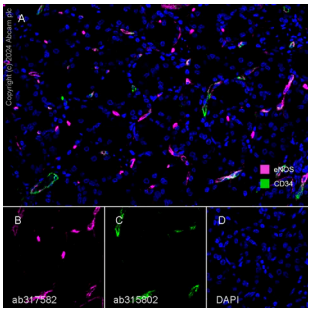
Positive staining on endothelium of human lung (PMID: 16234507). The section was incubated with ab315802 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins

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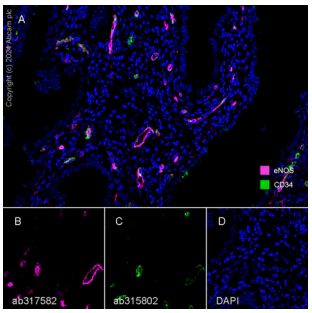
Multiplex immunohistochemistry - Anti-CD34 antibody [EPR27432-54] (ab315802)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human stomach labelling eNOS with ab317582 at 1/500 (B) and CD34 with ab315802 at 1/2000 dilution (C). Opal Polymer HRP Ms + Rb was used as a secondary antibody. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

Panel A: merged staining of anti-eNOS (magenta; Opal™520), anti-CD34 (green; Opal™570) on human stomach.

Panel B: anti-eNOS staining endothelium in human stomach.
Panel C: anti-CD34 staining endothelium in human stomach.
Panel D: Nuclear DNA was labeled with DAPI (shown in blue).

The section was incubated in three rounds of staining: in the order of ab317582 and ab315802 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.

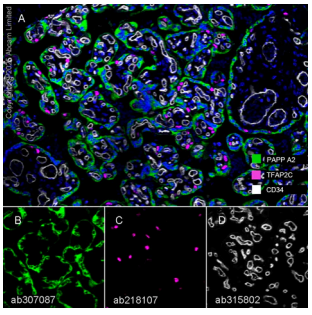


Multiplex immunohistochemistry - Anti-CD34 antibody [EPR27432-54] (ab315802)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human endometrium labelling eNOS with ab317582 at 1/500 (B) and CD34 with ab315802 at 1/2000 dilution (C). Opal Polymer HRP Ms + Rb was used as a secondary antibody. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

Panel A: merged staining of anti-eNOS (magenta; Opal™520), anti-CD34 (green; Opal™570) on human endometrium.
Panel B: anti-eNOS staining endothelium in human endometrium.
Panel C: anti-CD34 staining endothelium in human endometrium.
Panel D: Nuclear DNA was labeled with DAPI (shown in blue).

The section was incubated in three rounds of staining: in the order of ab317582 and ab315802 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-CD34 antibody [EPR27432-54] (ab315802)

CD34 Multiplex immunohistochemistry staining of Human placenta using rabbit Anti-CD34 antibody

Multiplex immunohistochemistry analysis of formalin/PFA-fixed paraffin-embedded human placenta tissue staining PAPP A2 with ab307087 at a 1/5000 dilution, ab218107 anti-TFAP2C used at 1/200 dilution and ab315802 anti-CD34 used at a 1/2000 dilution.
Panel A: anti-PAPP A2 (green; Opal™520), anti-TFAP2C (magenta; Opal™690) and anti-CD34 (gray; Opal™570) on human placenta.

Panel B: anti-PAPP A2 staining cytoplasm of trophoblast in human placenta.

Panel C: anti-TFAP2C staining nucleus of trophoblast in human placenta.

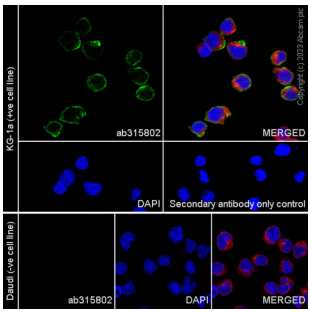
Panel D: anti-CD34 staining endothelium in human placenta.

Nuclear DNA was labeled with DAPI (shown in blue).

The section was incubated in three rounds of staining: in the order of ab307087, ab218107 and ab315802 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.

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins.



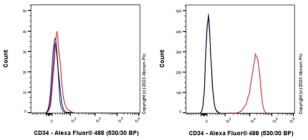
Immunocytochemistry/ Immunofluorescence - Anti-CD34 antibody [EPR27432-54] (ab315802)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized KG-1a (human bone marrow myeloblast) cells labelling CD34 with ab315802 at 1/500 (1.048 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 2 ug/ml dilution (Green).

Confocal image showing membranous staining in KG-1a cell line.
Negative control: Daudi (PMID: 10942240)
Image was taken with a confocal microscope(Leica-Microsystems, TCS SP8).

ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 2.5ug/ml dilution (Red). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/ml dilution.

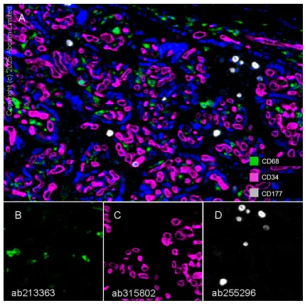


Flow Cytometry - Anti-CD34 antibody [EPR27432-54] (ab315802)

Flow cytometric analysis of Daudi (human Burkitt's lymphoma lymphoblast, Left) / KG-1a (human bone marrow myeloblast, Right) cells labelling CD34 with ab315802 at 1/500 dilution (0.1 ug)/Red compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue).

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

Negative control: Daudi (PMID: 21286385, 10942240). Gated on viable cells.



Multiplex immunohistochemistry - Anti-CD34 antibody [EPR27432-54] (ab315802)

CD34 Multiplex immunohistochemistry staining of Human placenta using rabbit Anti-CD34 antibody

Multiplex immunohistochemistry analysis of formalin/PFA-fixed paraffin-embedded human placenta tissue staining CD68 with ab213363 at a 1/500 dilution, ab315802 anti-CD34 used at 1/2000 dilution and ab255296 anti-CD177 used at a 1/2000 dilution.
Panel A: merged staining of anti-CD68 (green; Opal™520), anti-CD34 (magenta; Opal™690) and anti-CD177 (gray; Opal™570) on human placenta.

Panel B: anti-CD68 staining macrophages in human placenta.

Panel C: ant-CD34 staining endothelium in human placenta.

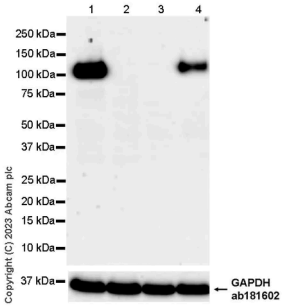
Panel D: ant-CD177 staining neutrophils in human placenta.

Nuclear DNA was labeled with DAPI (shown in blue).

The section was incubated in three rounds of staining: in the order of ab213363, ab315802 and ab255296 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.

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.



Western blot - Anti-CD34 antibody [EPR27432-54] (ab315802)

CD34 Western blot staining using rabbit Anti-CD34 antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

Negative control: Daudi (PMID: 21286385, 10942240), HuT-78.

The molecular weight observed is consistent with what has been described in the literature (PMID: 37181754, 29296932).

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.

All lanes:
Western blot - Anti-CD34 antibody [EPR27432-54] (ab315802) at 1/1000 dilution

Lane 1:
KG-1a (human bone marrow myeloblast) whole cell lysate at 20 µg

Lane 2:
Daudi (human Burkitts lymphoma lymphoblast) whole cell lysate at 20 µg

Lane 3:
HuT-78 (human Sezary syndrome cutaneous T lymphocyte) whole cell lysate at 20 µg

Lane 4:
TF-1 (human erythroleukemia erythroblast) whole cell lysate at 20 µg

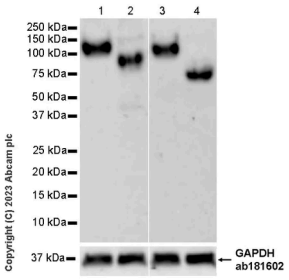
Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Developed using the ECL technique.

Observed band size: 120 kDa, 36 kDa

Exposure time: 81s



Western blot - Anti-CD34 antibody [EPR27432-54] (ab315802)

CD34 Western blot staining using rabbit Anti-CD34 antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

The molecular weight observed is consistent with what has been described in the literature (PMID: 37181754, 29296932).

CD34 is a glycoprotein of approximately 120 kDa and detected as a 80-90 kDa band after treated with Protein Deglycosylation Peptide:N-glycosidase F (PNGase F).

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.

All lanes:
Western blot - Anti-CD34 antibody [EPR27432-54] (ab315802) at 1/1000 dilution

Lane 1:
Untreated human lung tissue lysate at 20 µg

Lane 2:
Human lung tissue lysate treated with Protein Deglycosylation Peptide: N-glycosidase F (PNGase F) at 20 µg

Lane 3:
Untreated human placenta tissue lysate at 20 µg

Lane 4:
Human placenta tissue lysate treated with Protein Deglycosylation Peptide: N-glycosidase F (PNGase F) at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Observed band size: 120 kDa, 36 kDa

Exposure time: 180s

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