Product Datasheet

LYVE-1 Antibody (RM0033-4D17) - Azide and BSA Free
NB110-61026

Unit Size: 0.1 mg

Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.

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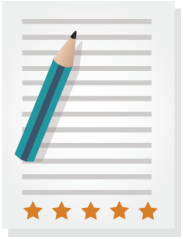
Updated 10/23/2024 v.20.1



NB110-61026

LYVE-1 Antibody (RM0033-4D17) - Azide and BSA Free

Product Information

Unit Size	0.1 mg
Concentration	LYOPH mg/ml
Storage	Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	RM0033-4D17
Preservative	No Preservative
Reconstitution Instructions	Reconstitute with sterilized PBS to a final concentration of 0.2 mg/ml.
Isotype	IgG2
Purity	Protein G purified
Buffer	Lyophilized from a 0.2 um filtered solution in PBS. 0.025 mg size is provided in liquid form, PBS
Target Molecular Weight	35 kDa

Product Description

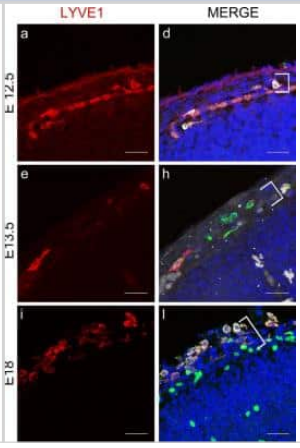
Host	Rat
Gene ID	10894
Gene Symbol	LYVE1
Species	Human, Mouse
Marker	Lymphatic Vessel Marker
Immunogen	Mouse recombinant LYVE-1

Product Application Details

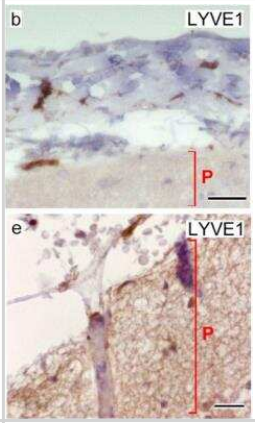
Applications	Western Blot, Immunohistochemistry, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot 1:500-1:1000, Immunohistochemistry 1:50-1:200, Immunohistochemistry-Paraffin 1:50-1:200

Images

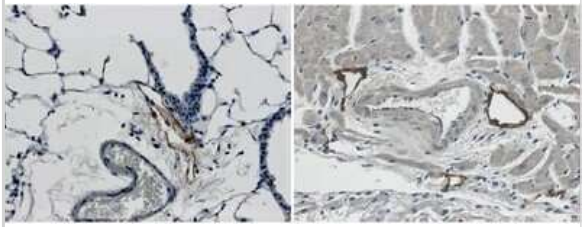
Immunohistochemistry: LYVE-1 Antibody (RM0033-4D17) [NB110-61026] - a-d As revealed by IHC, E12.5 mouse meninges (white bracket) contain cells that co-express LYVE1 (red), PROX1 (green), and MRC1 (white). DAPI marks the nuclei in blue (d). Scale=30 um. n=3 brains. e-h E13.5 mouse meninges (white bracket) contain cells that co-express LYVE1 (red), PROX1 (green), and MRC1 (white). DAPI marks the nuclei in blue (h). Scale=30 um. n=3 brains. i-l E18 mouse meninges (white bracket) contain cells that co-express LYVE1 (red), PROX1 (green), and MRC1 (white). PROX1 is cytoplasmic (j, red arrows) in the meninges but nuclear in neurons (j, blue arrows). DAPI marks the nuclei in blue (l). Scale=30 um. n=3 brains. Image collected and cropped by CiteAb from the following publication (link.springer.com/10.1007/s00401-019-02091-z), licensed under a CC-BY license.



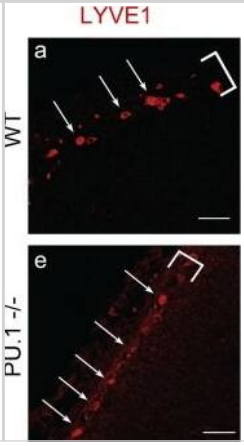
Immunohistochemistry: LYVE-1 Antibody (RM0033-4D17) [NB110-61026] - Cells of human meninges co-express LLEC markers. DAB-IHC with single antibody detecting LYVE1 (b), in the meninges of human post mortem brain showing no signs of neuropathology. These images are taken from a 38 year old male (sample P17/07), and confirmed in n = 2 additional samples. P parenchyma. Scale = 40 um. DAB-IHC with single antibody detecting LYVE1 (c), in elderly human meninges (age: 89-92) with evidence of neuropathology and confirmed in n = 3 brains. P, parenchyma. Scale = 20 um. Image collected and cropped by CiteAb from the following publication (link.springer.com/10.1007/s00401-019-02091-z), licensed under a CC-BY license.



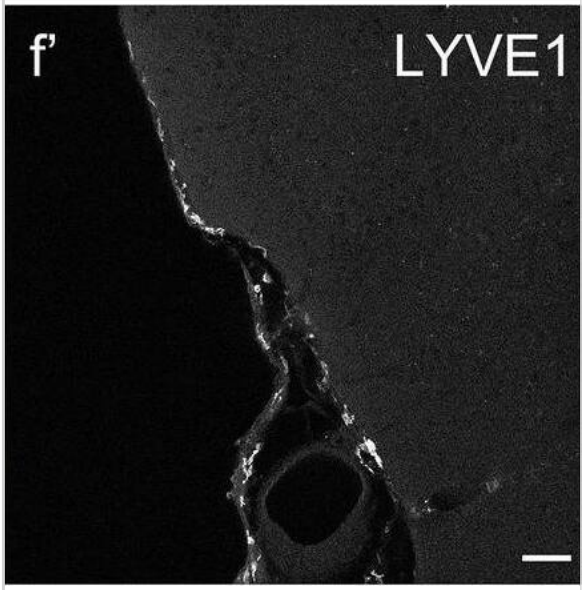
Immunohistochemistry-Paraffin: LYVE1 Antibody (RM0033-4D17) [NB110-61026] - 4% PFA fixed and paraffin embedded mouse Lung and Heart tissue section was subjected to IHC staining of mouse LYVE-1.



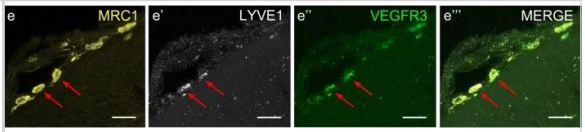
Immunocytochemistry/ Immunofluorescence: LYVE-1 Antibody (RM0033-4D17) - Azide and BSA Free [NB110-61026] - Mouse LLECs develop independent of the transcription factor PU.1. a–d As detected by IHC, E15.5 wild-type mice have cells that co-express LYVE1 (a, red) PROX1 (b, green) & MRC1 (c, white) in the developing meninges (white bracket). DAPI labels nuclei blue in the merged image (d). White arrows indicate cells with these three markers. Scale = 50 µm. n = 2 brains. e–h) The meninges (white bracket) of E15.5 PU.1 knockout siblings contain many cells (white arrows) that co-express LYVE1 (e, red), PROX1 (f, green), & MRC1 (g, white). Scale = 50 µm. n = 3 brains Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/31696318), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



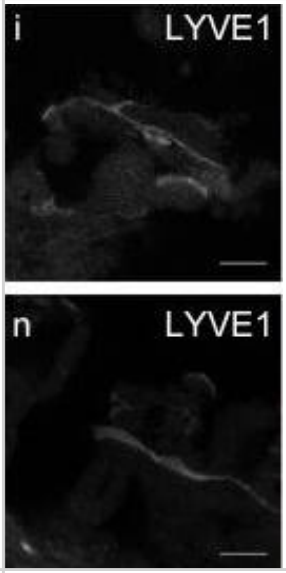
Immunocytochemistry/ Immunofluorescence: LYVE-1 Antibody (RM0033-4D17) - Azide and BSA Free [NB110-61026] - Mouse LLECs take up Aβ 1-40. a Schematic showing the site of dye & Aβ1-40 perfusion into the CSF via the cisterna magna (arrow) of a 2-month old mouse. The dotted line indicates the plane of section. A anterior, P posterior, D dorsal, V ventral. b Coronal brain section indicating the areas imaged. SF4 refers to area captured in Figure S4. c The percentage of each labelled cell type that internalized perfused Aβ. Cells co-expressing VEGFR3 & LYVE1 take up Aβ at a higher rate than MRC1, LYVE1 double-positive cells as well as MRC1-positive, LYVE1-negative cells ($p \leq 0.05$, bootstrap). VEGFR3, LYVE1 counts, n = 2 brains (3 sections/brain). MRC1, LYVE1 counts, n = 3 brains (3 sections/brain). d–d‴ Cells of the adult mouse meninges that co-express VEGFR3 (d, green) & LYVE1 (d′, white) internalize Aβ1-40 (d″, cyan). Scale = 20 µm. e-e‴) Cells of the adult mouse meninges that co-express VEGFR3 (e, green) & MRC1 (e′, white) internalize Aβ1-40 (e″, cyan). Scale = 40 µm. f–f‴) Cells of the adult mouse meninges that co-express MRC1 (f, magenta) & LYVE1 (f′, white) internalize Aβ1-40 (f″, cyan). The walls of a blood vessel (white arrowhead, f″) also accumulate Aβ1-40. Scale = 60 µm Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/31696318), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



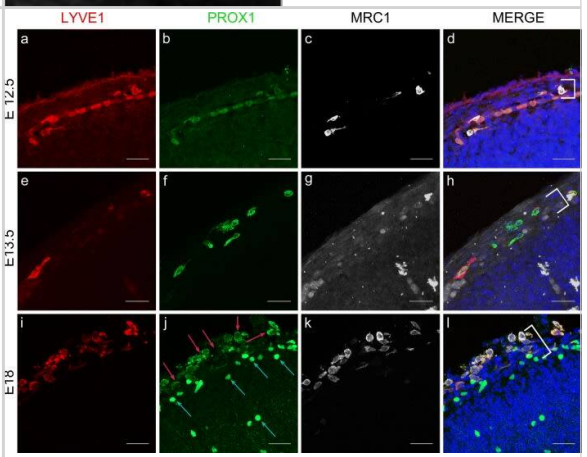
Immunocytochemistry/ Immunofluorescence: LYVE-1 Antibody (RM0033-4D17) - Azide and BSA Free [NB110-61026] - Cells with BLEC molecular markers are present within the mouse leptomeninges. a Coronal brain section of adult zebrafish brain indicating the imaging area in the dorsal optic tectum (TeO). b A 14 month old Tg(kdr-l:mCherry); Tg (flt4:mCitrine) double transgenic zebrafish has cells in the meninges (white bracket) that express flt4/vegfr3 (α-GFP, green) near kdr-l positive (α-RFP, red) blood vessels. DAPI (blue) labels the nuclei. Scale = 50 µm. c Coronal mouse brain section showing the imaging areas of the meninges. d As revealed by IHC, 17-week-old mouse brains express VEGFR3 (green) in the meninges (white bracket). Tie2-GFP;NG2-DsRed double reporter mice were used to distinguish arteries & veins. NG2 (red) labels pericytes & smooth muscle cells, Tie2 (magenta) labels vascular endothelial cells, & Hoechst (blue) stains nuclei. The image is rotated with the parenchyma at the bottom for ease of comparison with panel b. Scale = 50 µm. e-e‴ As revealed by IHC, cells of the meninges co-express MRC1 (e, yellow), LYVE1 (e′, white), & VEGFR3 (e″, green). Red arrows highlight cells expressing these three markers. The images are rotated with the parenchyma at the bottom. scale = 30 µm. f, g Quantification of the relative numbers of single & double-labelled cells in 2-month old mouse meninges. VEGFR3 & LYVE1 cell counts were from n = 2 brains, 3 coronal sections (10 area images)/brain. MRC1 & LYVE1 cell counts were from n = 3 brains, 3 coronal sections (4 area images)/brain. The mean values for each set are depicted Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/31696318), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Immunocytochemistry/ Immunofluorescence: LYVE-1 Antibody (RM0033-4D17) - Azide and BSA Free [NB110-61026] - Cells of human meninges co-express LLEC markers. a–c DAB-IHC with single antibodies detects VEGFR3 (a), LYVE1 (b), & MRC1 (c) in the meninges of human post mortem brain showing no signs of neuropathology. These images are taken from a 38 year old male (sample P17/07, Table 1), & confirmed in n = 2 additional samples. P parenchyma. Scale = 150 µm (a); 40 µm (b); & 20 µm (c). d–f DAB-IHC with single antibodies detects VEGFR3 (b), LYVE1 (c), & MRC1 (d) in elderly human meninges (age: 89–92) with evidence of neuropathology & confirmed in n = 3 brains (Table 1). P, parenchyma. Scale = 20 µm. g–p IHC with fluorescent antibodies detects human meningeal cells that co-express MRC1 (h, m, yellow), LYVE1 (i, n, white), & VEGFR3 (j, o, green). Nuclei/RNA are labelled with DAPI (g, l, blue) & images are merged in (k, p). Scale = 10 µm Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/31696318), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Immunocytochemistry/ Immunofluorescence: LYVE-1 Antibody (RM0033-4D17) - Azide and BSA Free [NB110-61026] - Cells expressing LLEC markers are present within embryonic mouse leptomeninges. a–d As revealed by IHC, E12.5 mouse meninges (white bracket) contain cells that co-express LYVE1 (red), PROX1 (green), & MRC1 (white). DAPI marks the nuclei in blue (d). Scale = 30 µm. n = 3 brains. e–h E13.5 mouse meninges (white bracket) contain cells that co-express LYVE1 (red), PROX1 (green), & MRC1 (white). DAPI marks the nuclei in blue (h). Scale = 30 µm. n = 3 brains. i–l E18 mouse meninges (white bracket) contain cells that co-express LYVE1 (red), PROX1 (green), & MRC1 (white). PROX1 is cytoplasmic (j, red arrows) in the meninges but nuclear in neurons (j, blue arrows). DAPI marks the nuclei in blue (l). Scale = 30 µm. n = 3 brains Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/31696318), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Shibata-Germanos S, Goodman JR, Grieg A et al. Structural and functional conservation of non-lumenized lymphatic endothelial cells in the mammalian leptomeninges Acta Neuropathol. 2019-11-06 [PMID: 31696318] (IHC-P, Human)

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