Anti-mouse LEC26 (#LA102)

20150114BB

FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	**103-M152**
Size:	100 µg
Lot. No.:	According to product label
Country of origin:	Germany

Preparation: The antibody was produced by a rapid differential immunization of DA rats with collagenase- and neuraminidase-treated mouse benign lymphangiomas (licensed from Tokyo Women's Medical University, Japan).

Target Background

Synonyms:	LA102, Lymphatic EC 26

Two novel rat monoclonal antibodies (LA102 and LA5) were generated to identify mouse lymphatic vessels and blood vessels, respectively. Both antibodies were characterized as to the morphological and functional specificities of endothelial cells of both types of vessels. The antibodies were produced by a rapid differential immunization of DA rats with collagenase- and neuraminidase-treated mouse lymphangioma tissues. LA102 specifically reacted with mouse lymphatic vessels except the thoracic duct and the marginal sinus of lymph nodes, but not with any blood vessels. LA102 recognized a protein of 25–27 kDa. Neither antibody recognized any currently identified lymphatic or vascular endothelial cell antigens. Immunoelectron microscopy revealed that the antigens recognized by LA102 were localized on both luminal and abluminal endothelial cell membranes of each vessel type. Interestingly, LA102 immunoreactivity was strongly expressed on pinocytic or transport vesicle membrane in the cytoplasm of lymphatic endothelium. Besides endothelial cells, both antibodies also recognized some types of lymphoid cells. Since, the LA102 antigen molecule is expressed on some lymphoid cells, it may play important roles in the migration of lymphoid cells and in some transport mechanisms through lymphatic endothelial cells.

References

1. Ezaki et al., Anat. Embryol, 211: 379-393, 2006
2. Buttler et al., BMC Devlop. Biol. 8: 43, 2008
3. Schniedermann et al. BMC Cell Biology 2010]

Database References Antigen

Protein RefSeq:	ND
Uniprot ID:	ND
mRNA RefSeq:	ND

Product Specifications

Species reactivity	mouse
Clone/Ab feature	IgG_{2b}, #LA102
Cross reactivity	ND
Host	rat
Clonality	monoclonal
Purification	Protein G purified
Immunogen	with collagenase- and neuraminidase-treated mouse benign lymphangiomas
Formulation	lyophilized
Buffer	PBS

Stability: The lyophilized antibody is stable at room temperature for up to 1 month. The reconstituted antibody is stable for at least two weeks at 2-8°C. Frozen aliquots are stable for at least 6 months when stored at -20°C.

Reconstitution: Centrifuge vial prior to opening. Reconstitute in sterile water to a concentration of 0.1-1.0 mg/ml.

AVOID REPEATED FREEZE AND THAW CYCLES!

Applications

IF/IHC:	IHC: Cryo section (acetone fixed)
IF/IHC:	IF: Use at 2-10 µg/ml.

NOTE: OPTIMAL DILUTIONS SHOULD BE DETERMINED BY EACH LABORATORY FOR EACH APPLICATION!

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Handling/Applications

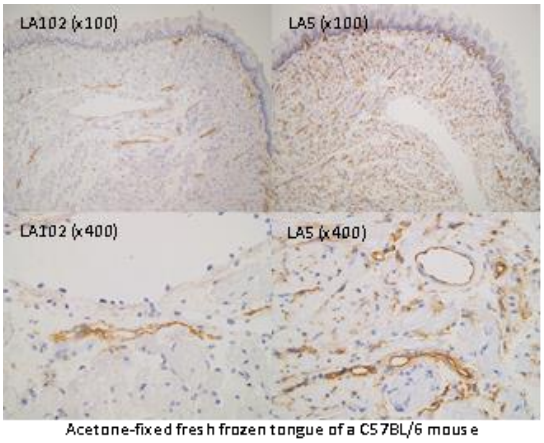

Figure 1: Specificity: LA102 reacts with mouse lymphatic vessels except the thoracic duct and the marginal sinus of lymph nodes, but not with any blood vessels. LA102 recognized a protein of around 26 kDa. The antigen recognized by LA102 was localized on both luminal and abluminal lymphatic endothelial cell membranes. Besides lymphatics, some lymphoid cells are also recognized.

The antibody does not cross react with tissues of other species such as human, rat, guinea pig and chicken.

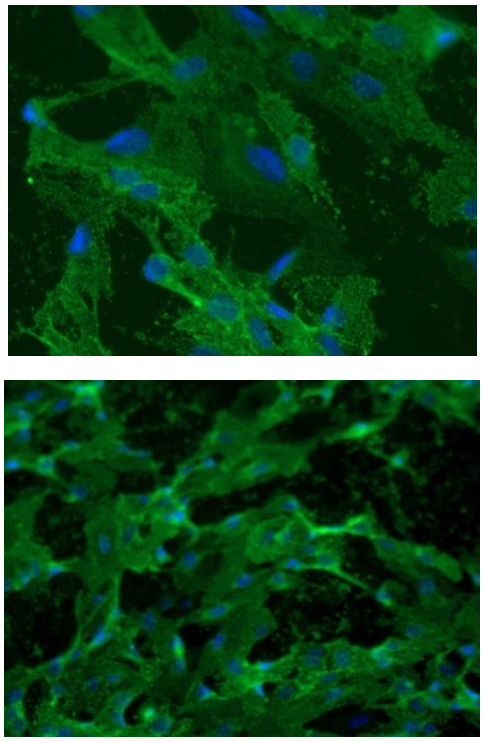

Figure 2: Immunofluorescence staining (green) of LEC26 (LA102) in primary mouse endothelial cells (SnoMec) with anti-mouse LEC26 (10µg/ml) [**Cat# 103-M152**] and counter staining of nuclei with Dapi. As secondary antibody goat anti-rat ALEXA Flour 488 (Dianova) was used 1:400. (Upper panel: 1:400; lower panel: 1:200)

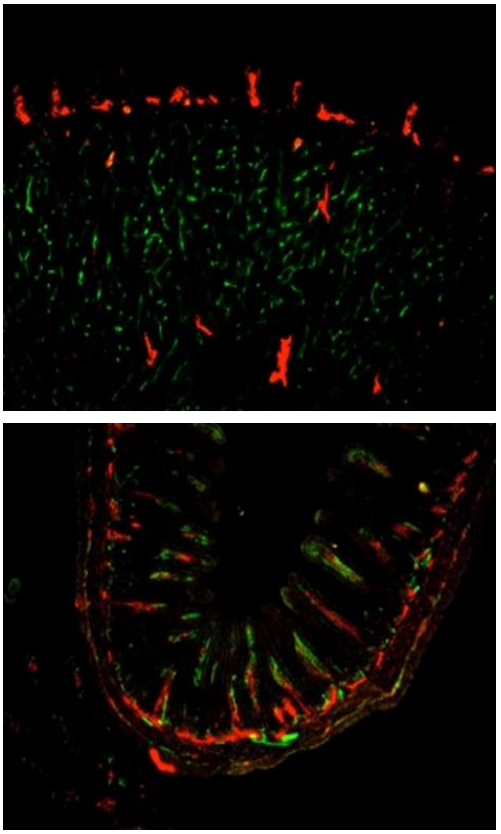

Figure 3: Immunofluorescence staining of BEC12/LA5 (green) [Cat# 103-M154] and LEC26/LA102 (red) [Cat# 103-M152] in the tongue (upper panel) and small intestine (lower panel) from C57BL/6 female mice. Fresh frozen cryosections (10 micron thick) were fixed with acetone for 10 min at RT and then reacted directly with Biotin-conjugated LA102 followed by streptoavidin-Cy3 (red) and Alexa488 labeled LA5 (green) for double staining.
The experiments were performed by the research group of Prof. T. Ezaki, TWMU, Tokyo, Japan.