**For Research Use Only.
Not for use in diagnostic procedures.**

MONOCLONAL ANTIBODY

# PE labeled Anti-Mouse LYVE-1

| Code No. | Clone | Subclass | Quantity |
|---|---|---|---|
| D225-5 | ALY7 | Rat IgG1 κ | 1 mL (50 tests) |

**BACKGROUND:** Hyaluronan (HA) is a high molecular weight polymer composed of alternating glucuronic acid and N-acetylglucosamine. HA is involved in homeostasis, development, and tissue remodeling. A major receptor for HA is designated as LYVE-1 (Lymphatic vessel endothelial hyaluronan receptor-1). LYVE-1 is a ~35 kDa integral membrane protein which is down-regulated in human liver cancer and cirrhosis. LYVE-1 localizes on the luminal face of the lymph wall, but is absent from blood vessels. Thus, anti-LYVE-1 antibody is a powerful tool for the identification of lymph vessels and for studies of lymphangiogenesis. LYVE-1 antibodies have been used successfully to distinguish lymphatic invasion by malignant tumor cells from blood vessel invasion.

**SOURCE:** This antibody was purified from hybridoma (clone ALY7) supernatant using protein G agarose. This hybridoma was established by fusion of mouse myeloma cell X63-Ag8 with Wister rat splenocyte immunized with the recombinant mouse LYVE-1 (1-228 aa) encoding the extracellular domain.

**FORMULATION:** 50 tests in 1 mL volume of PBS containing 1% BSA and 0.09% $NaN_3$.
*Azide may react with copper or lead in plumbing system to form explosive metal azides. Therefore, always flush plenty of water when disposing materials containing azide into drain.

**STORAGE:** This antibody solution is stable for one year from the date of purchase when stored at 4°C.

**REACTIVITY:** This antibody reacts with mouse LYVE-1 on Flow cytometry.

**APPLICATION:**
Flow cytometry; 20 µL (ready for use)
*Please refer to the data sheet (MBL; code no. D225-3) for other applications.

Detailed procedure is provided in the following **PROTOCOL**.

**SPECIES CROSS REACTIVITY:**

| Species | Human | Mouse | Rat |
|---|---|---|---|
| Cell | Not Tested | Transfectant | Not Tested |
| Reactivity on FCM | | + | |

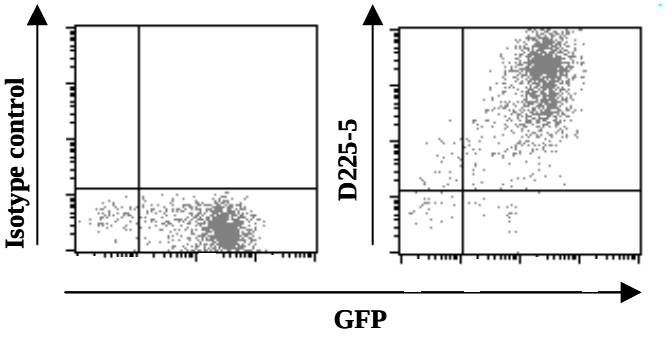
**REFERENCES:**
1) Hirashima, M., *et al.*, *Dev. Biol*. **316**, 149-159 (2008)
2) Mishima, K., *et al.*, *Mol. Biol. Cell* **18**, 1421-1429 (2007)
3) Hamaguchi, I., *et al.*, *Blood* **107**, 1207-1213 (2006)
4) Morisada, T., *et al*., *Blood* **105**, 4649-4656 (2005)

Clone ALY7 is used in these references.

**INTENDED USE:**
For Research Use Only. Not for use in diagnostic procedures.

**RELATED PRODUCTS:**

| | |
|---|---|
| D225-3 | anti-mouse LYVE-1 (ALY7) |
| D189-1 | anti-human Aggrus/Podoplanin (YM-1) |
| D190-3 | anti-mouse Aggrus/Podoplanin (8F11) |
| D190-4 | anti-mouse Aggrus/Podoplanin-FITC (8F11) |
| M080-5 | Rat IgG1 isotype control-PE (1H5) |




***Flow cytometric analysis of Mouse LYVE-1 expression on transfectant.***

**PROTOCOL:**
**Flow cytometric analysis for floating cells**
We usually use Fisher tubes or equivalents as reaction tubes for all steps described below.
1) Wash the cells 3 times with washing buffer [PBS containing 2% fetal calf serum (FCS) and 0.1% $NaN_3$].
2) Resuspend the cells with washing buffer ($5x10^6$ cells/mL).
3) Add 50 µL of the cell suspension into each tube, and centrifuge at 500 x g for 1 minute at room temperature (20~25°C). Remove supernatant by careful aspiration.
4) Add 10 µL of normal goat serum containing 1 mg/mL normal human IgG and 0.1% $NaN_3$ to the cell pellet after tapping. Mix well and incubate for 5 minutes at room temperature.
5) Add 20 µL of PE labeled anti-mouse LYVE-1 (ALY7). Mix well and incubate for 20 minutes at room

temperature.

6) Add 1 mL of the washing buffer followed by centrifugation at 500 x g for 1 minute at room temperature. Remove supernatant by careful aspiration.
7) Resuspend the cells with 500 μL of the washing buffer and analyze by a flow cytometer.