

Product Information

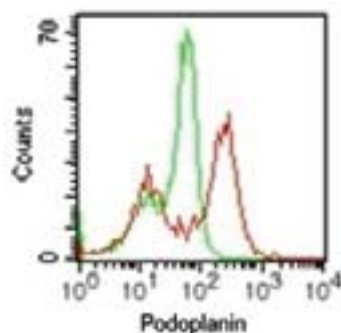


Podoplanin Monoclonal Antibody (Clone pmab-1)

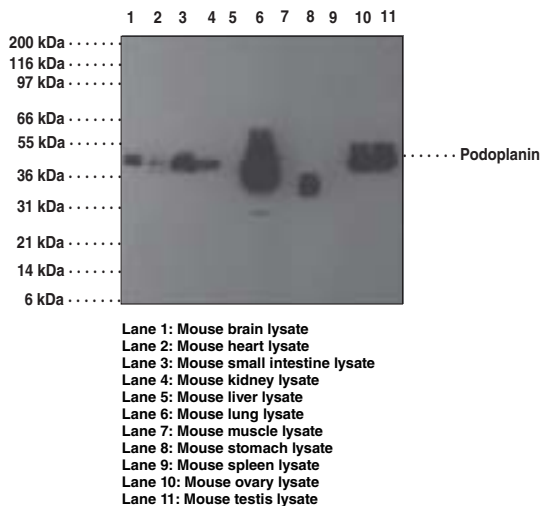
Item No. 11005

- Contents:** This vial contains 100 µg of protein G-purified IgG in 200 µl PBS containing 0.05% BSA and 0.05% sodium azide
- Synonyms:** Aggrus, gp38, T1A
- Clone Designation:** pmab-1
- Isotype:** Rat IgG_{2a}κ
- Host:** Rat
- Cross Reactivity:** (+) Mouse Podoplanin
- Stability:** ≥6 months at -20°C
- Applications:** Flow cytometry (FC) and western blot (WB); the recommended starting concentration for FC is 0.5 µg/10⁵ cells and 3-5 µg/ml for WB. Other applications were not attempted and therefore optimal working dilutions should be determined empirically.

Podoplanin is a 43 kDa type 1 transmembrane glycoprotein found on many tissues. Podoplanin appears to be differentially expressed by lymphatic endothelial cells but not blood vessel endothelial cells.¹ Podoplanin has also been found to be expressed on a wide variety of tumors. It appears to be involved in lymphangiogenesis and promoting cell migration.² Recently, there are indications of podoplanin presence on Th17 cells.³ In a murine EAE model for autoimmune disease it has been shown that Th17 cells migrate quickly to the CNS at EAE onset. Injection of antibody to podoplanin in mice also immunized with myelin antigen to induce EAE results in elevated numbers of Th17 cells in the CNS. Thus as in effecting migration of tumor cells, podoplanin may also promote migration of committed Th17 cells to sites of inflammation in autoimmune diseases.



Flow cytometric analysis using podoplanin antibody. Mouse LLC1 cells were probed using 0.5 µg of podoplanin antibody (red) and 0.5 µg of isotype control antibody (green).



References

1. Shen, Y., Chen, C.S., Ichikawa, H., *et al.* Src induces Podoplanin expression to promote cell migration. *J. Biol. Chem.* **285**(13), 9649-9656 (2010).
2. Farr, A., Nelson, A., and Hosier, S. Characterization of an antigenic determinant preferentially expressed by type I epithelial cells in the murine thymus. *J. Histochem. Cytochem.* **40**(5), 651-664 (1992).
3. Schacht, V., Dadras, S.S., Johnson, L.A., *et al.* Up-regulation of the lymphatic marker Podoplanin, a mucin-type transmembrane glycoprotein, in human squamous cell carcinomas and germ cell tumors. *Am. J. Pathology* **166**(3), 913-921 (2011).

Related Products

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WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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