BOSTER BIOLOGICAL TECHNOLOGY Co.,Ltd.
3942 B Valley Ave, Pleasanton, CA, 94566
Phone: 888-466-3604 Fax: 925-215-2184 Email: boster@bosterbio.com Web: www.bosterbio.com

Polyclonal Anti-PDPN Antibody

Catalog Number: PA1674

Description

Gene Name	podoplanin
Recommended Protein Name	Podoplanin
Lot No.	0161212c017431
Size	100μg/vial
Form	lyophilized
Ig type	Rabbit IgG
Specificity	No cross reactivity with other proteins.
Purification	Immunogen affinity purified.
Species	**Reacts with:** human
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human PDPN(227-238aa VVMRKMSGRYSP).
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na_2HPO_4, 0.05mg Thimerosal, 0.05mg NaN_3.

Application

	Concentration	Tested Species	Predicted Species	Antigen Retrieval
Western blot	0.1-0.5μg/ml	Hu	-	-

Tested Species: In-house tested species with positive results.

Predicted Species: Species predicted to be fit for the product based on sequence similarities.

Other applications have not been tested.

Optimal dilutions should be determined by end users.

Preparation and storage

Reconstitution: 0.2ml of distilled water will yield a concentration of 500μg/ml.

Storage: At -20˚C for one year. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for a longer time.
Avoid repeated freezing and thawing.

Relevant detection systems

Boster provides a series of assays reacted with primary antibodies. Antibody can be supported by chemiluminescence kit EK1002 in WB.

Background

PDPN(Podoplanin), also called T1A, T1A2, GP36, OTS8 or AGGRUS, is a protein that in humans is encoded by the PDPN gene. This gene encodes a type-I integral membrane glycoprotein with diverse distribution in human tissues. The PDPN gene is mapped to chromosome 1 by the International radiation Hybrid mapping consortium. The physiological function of PDPN may be related to its mucin-type character. The specific function of this protein has not been determined but it has been proposed as a marker of lung injury. Immunohistochemical analysis of PDPN in placenta, kidney, lung, and nasal polyps showed expression at the apical plasma membrane of vascular endothelial cells and in alveolar epithelial cells. Overexpression of rat PDPN in human and rodent endothelial cells promoted formation of elongated cell extensions and significantly increased endothelial cell adhesion, migration, and tube formation. Inhibition of PDPN expression by small interfering RNAs decreased cell adhesion in cultured human dermal lymphatic endothelial cells.

Reference

1. Kato, Y., Fujita, N., Kunita, A., Sato, S., Kaneko, M., Osawa, M., Tsuruo, T. Molecular identification of Aggrus/T1-alpha as a platelet aggregation-inducing factor expressed in colorectal tumors. J. Biol. Chem. 278: 51599-51605, 2003.
2. Ma, T., Yang, B., Matthay, M. A., Verkman, A. S. Evidence against a role of mouse, rat, and two cloned human T1-alpha isoforms as a water channel or a regulator of aquaporin-type water channels. Am. J. Resp. Cell Molec. Biol. 19: 143-149, 1998.
3. Schacht, V., Ramirez, M. I., Hong, Y.-K., Hirakawa, S., Feng, D., Harvey, N., Williams, M., Dvorak, A. M., Dvorak, H. F., Oliver, G., Detmar, M. T1-alpha/podoplanin deficiency disrupts normal lymphatic vasculature formation and causes lymphedema. EMBO J. 22: 3546-3556, 2003.