Revision 1

Store at -20C

#39958

PLVAP Antibody (Carboxy-terminal Antigen)

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H	Endogenous	70, 140	Rabbit	#Q9BX97	83483

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:100

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. *Do not aliquot the antibody.*

Specificity/Sensitivity

PLVAP Antibody (Carboxy-terminal Antigen) recognizes endogenous levels of total PLVAP protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human PLVAP protein. Antibodies are purified by peptide affinity chromatography.

Background

PLVAP (plasmalemma vesicle-associated protein) is an endothelial cell (EC)-specific type II membrane protein. It forms diaphragms that bridge the opening of caveolae, fenestrae, and trans-endothelial channels and plays a role in regulating vascular permeability. PLVAP expression is restricted to a subset of ECs in the normal microvasculature, but it is not expressed in the ECs of large vessels, with the exception of the endocardial lining of the heart chambers (1). While PLVAP is expressed in ECs in the brain and retina during embryogenesis and postnatal development, it is not expressed in mature endothelium that forms blood–brain barrier (BBB) and blood–retinal barrier (BRB). However, under pathological conditions associated with barrier disruption such as brain ischemia, cancer, and diabetic retinopathy, PLVAP expression is induced in endothelium of BBB and BRB (2). PLVAP was previously considered as an EC marker of the vascular system, its expression is now reported in lymphatic ECs (LECs) in lymph nodes and it may play a role in regulating the parenchymal entry of lymphocytes and soluble antigens (3,4).

Background References

1. Guo, L. et al. (2016) *Exp Ther Med* 12, 1639-44.
2. Bosma, E.K. et al. (2018) *Fluids Barriers CNS* 15, 24.
3. Rantakari, P. et al. (2015) *Nat Immunol* 16, 386-96.
4. Ulvmar, M.H. and Mäkinen, T. (2016) *Cardiovasc Res* 111, 310-21.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human

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