

Store at
-20C
#92470**PLXND1 Antibody**

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H	Endogenous	250	Rabbit	#Q9Y4D7	23129

Product Usage Information**Application**

Western Blotting

Dilution

1:1000

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

PLXND1 Antibody recognizes endogenous levels of total PLXND1 protein.

Species predicted to react based on 100% sequence homology

Rat

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val1665 of human PLXND1 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

PLXND1 (PlexinD1) is a type I transmembrane receptor for semaphorin (SEMA) family signaling molecules (1). PLXND1 has an extracellular SEMA binding domain, and a cytoplasmic tail containing RasGAP motifs and a RhoGTPase-binding domain. Upon ligand binding, PLXND1 undergoes conformational change and acquires GAP activity that inactivates downstream Rac/Ras signaling, leading to focal adhesion destabilization (2). The PLXND1 signaling pathway plays important roles in neuronal synapse formation, vascular branching, and thymocyte migration (2-4). Increased expression of PLXND1 is positively correlated with tumor stages in multiple cancer types (6). This is supported by gene knockdown experiments that suggest that SEMA/PLXND1 signaling may contribute metastatic progression (7-8).

Background References

- Gu, C. and Giraudo, E. (2013) *Exp Cell Res* 319, 1306-16.
- Gay, C.M. et al. (2011) *Dev Biol* 349, 1-19.
- Pecho-Vrieseling, E. et al. (2009) *Nature* 459, 842-6.
- Zygmunt, T. et al. (2011) *Dev Cell* 21, 301-14.
- Choi, Y.I. et al. (2008) *Immunity* 29, 888-98.
- Rehman, M. et al. (2016) *PLoS One* 11, e0164660.
- Tseng, C.H. et al. (2011) *PLoS One* 6, e19396.
- Casazza, A. et al. (2010) *J Clin Invest* 120, 2684-98.

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

Cross-Reactivity Key

H: Human

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