Data Sheet (Cat.No.TMAH-00873)

TargetMol

Anti-Podoplanin Antibody (6Y710)

Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	6Y710
Purification:	Affinity-chromatography

Applications

Application:	ELISA

Properties

Stability & Storage:	Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	A synthetic peptide: Human PDPN
Antigen Species:	Human
Gene ID:	10630
Uniprot ID:	Q86YL7
Synonyms:	AGGRUS;HT1A-1;PA2.26;GP36;Gp38;T1A-2;T1A;GP40;TI1A;OTS8;T1A2;podoplanin
Biology Area:	Cardiovascular

Research Background

Mediates effects on cell migration and adhesion through its different partners. During development plays a role in blood and lymphatic vessels separation by binding CLEC1B, triggering CLEC1B activation in platelets and leading to platelet activation and/or aggregation. Interaction with CD9, on the contrary, attenuates platelet aggregation induced by PDPN. Through MSN or EZR interaction promotes epithelial-mesenchymal transition (EMT) leading to ERZ phosphorylation and triggering RHOA activation leading to cell migration increase and invasiveness. Interaction with CD44 promotes directional cell migration in epithelial and tumor cells. In lymph nodes (LNs), controls fibroblastic reticular cells (FRCs) adhesion to the extracellular matrix (ECM) and contraction of the actomyosin by maintaining ERM proteins (EZR; MSN and RDX) and MYL9 activation through association with unknown transmembrane proteins. Engagement of CLEC1B by PDPN promotes FRCs relaxation by blocking lateral membrane interactions leading to reduction of ERM proteins (EZR; MSN and RDX) and MYL9 activation. Through binding with LGALS8 may participate in connection of the lymphatic endothelium to the surrounding extracellular matrix. In keratinocytes, induces changes in cell morphology showing an elongated shape, numerous membrane protrusions, major reorganization of the actin cytoskeleton, increased motility and decreased cell adhesion. Controls invadopodia stability and maturation leading to efficient degradation of the extracellular matrix (ECM) in tumor cells through modulation of RHOC activity in order to activate ROCK1/ROCK2 and LIMK1/LIMK2 and inactivation of CFL1. Required for normal lung cell proliferation and alveolus formation at birth. Does not function as a water channel or as a regulator of aquaporin-type water channels. Does not have any effect on folic acid or amino acid transport.

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