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CD140a
Purified Mouse Monoclonal Antibody
Catalog # AO2734a

Specification

CD140a - Product Information

Application	**E, WB**
Primary Accession	P16234
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**Mouse IgG1**
Calculated MW	**122.6kDa KDa**

Immunogen
Purified recombinant fragment of human CD140a (AA: extra 179-361) expressed in E. Coli.

Formulation
Purified antibody in PBS with 0.05% sodium azide

CD140a - Additional Information

Gene ID 5156

Other Names
PDGFRA; PDGFR2; PDGFR-2

Dilution
E~~ 1/10000
WB~~ 1/500 - 1/2000

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
CD140a is for research use only and not for use in diagnostic or therapeutic procedures.

CD140a - Protein Information

Name PDGFRA

Synonyms PDGFR2, RHEPDGFRA

Function
Tyrosine-protein kinase that acts as a cell-surface receptor for PDGFA, PDGFB and PDGFC and plays an essential role in the regulation of embryonic development, cell proliferation, survival and chemotaxis. Depending on the context, promotes or inhibits cell proliferation and cell migration.

Plays an important role in the differentiation of bone marrow-derived mesenchymal stem cells. Required for normal skeleton development and cephalic closure during embryonic development. Required for normal development of the mucosa lining the gastrointestinal tract, and for recruitment of mesenchymal cells and normal development of intestinal villi. Plays a role in cell migration and chemotaxis in wound healing. Plays a role in platelet activation, secretion of agonists from platelet granules, and in thrombin-induced platelet aggregation. Binding of its cognate ligands - homodimeric PDGFA, homodimeric PDGFB, heterodimers formed by PDGFA and PDGFB or homodimeric PDGFC -leads to the activation of several signaling cascades; the response depends on the nature of the bound ligand and is modulated by the formation of heterodimers between PDGFRA and PDGFRB. Phosphorylates PIK3R1, PLCG1, and PTPN11. Activation of PLCG1 leads to the production of the cellular signaling molecules diacylglycerol and inositol 1,4,5-trisphosphate, mobilization of cytosolic Ca(2+) and the activation of protein kinase C. Phosphorylates PIK3R1, the regulatory subunit of phosphatidylinositol 3-kinase, and thereby mediates activation of the AKT1 signaling pathway. Mediates activation of HRAS and of the MAP kinases MAPK1/ERK2 and/or MAPK3/ERK1. Promotes activation of STAT family members STAT1, STAT3 and STAT5A and/or STAT5B. Receptor signaling is down-regulated by protein phosphatases that dephosphorylate the receptor and its down-stream effectors, and by rapid internalization of the activated receptor.

Cellular Location
Cell membrane; Single-pass type I membrane protein. Cell projection, cilium {ECO:0000250|UniProtKB:P26618}. Golgi apparatus {ECO:0000250|UniProtKB:P26618}

Tissue Location
Detected in platelets (at protein level). Widely expressed. Detected in brain, fibroblasts, smooth muscle, heart, and embryo. Expressed in primary and metastatic colon tumors and in normal colon tissue.

CD140a - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

CD140a - Images

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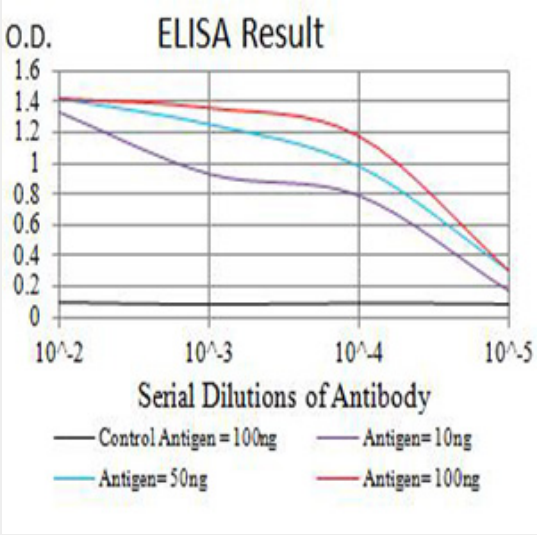

Figure 1:Black line: Control Antigen (100 ng);Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line:Antigen (100 ng)

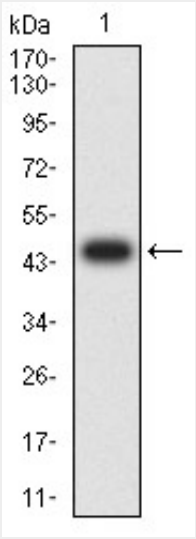

Figure 2:Western blot analysis using CD140a mAb against human CD140a (AA: extra 179-361) recombinant protein. (Expected MW is 46.5 kDa)

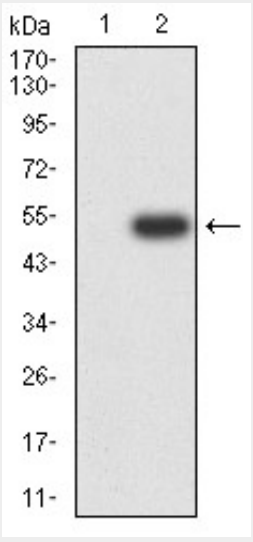

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Figure 3:Western blot analysis using CD140a mAb against HEK293 (1) and CD140a (AA: extra 179-361)-hIgGFc transfected HEK293 (2) cell lysate.

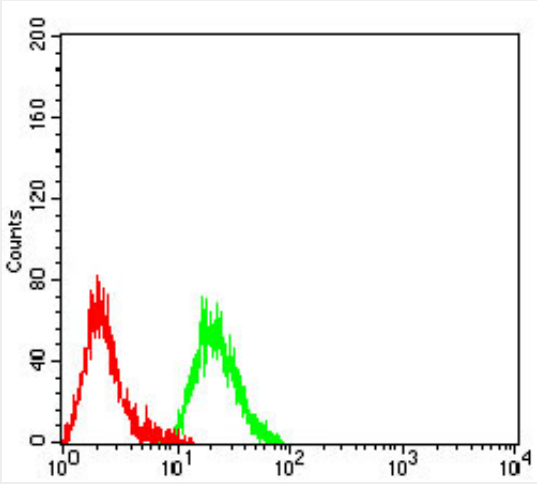

Figure 4:Flow cytometric analysis of Raji cells using CD140a mouse mAb (green) and negative control (red).

CD140a - References

1.World J Gastroenterol. 2016 Mar 28;22(12):3335-40.2.Gene Expr. 2015;16(3):109-27.