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Product datasheet for AM05597PU-N

PDPN Mouse Monoclonal Antibody [Clone ID: D2-40]

Product data:

Product Type:	Primary Antibodies
Clone Name:	D2-40
Applications:	IF, IHC, WB
Recommended Dilution:	**Western Blotting.** **Immunofluorescence**. **Immunohistochemistry on Frozen Sections:** 1/10-1/40. **Immunohistochemistry on Paraffin Sections:** 1/10-1/40. This product does not require protein digestion pre-treatment of paraffin sections. This product does not require antigen retrieval using heat treatment prior to staining of paraffin sections. ***Histology Positive Control Tissue:*** Human lymph node.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Resected tissue from dysgeminoma of the ovary
Specificity:	This antibody detects Podoplanin, a type-I transmembrane mucoprotein, which is highly expressed in the placenta, lung and skeletal muscle. Mouse anti human podoplanin antibody, clone D2-40 was raised against M2A antigen (Marks et al, 1999) and detects podoplanin (Sonne et al, 2006). Mouse anti human podoplanin antibody, clone D2-40 has been shown to be a sensitive and specific antibody for the detection of lymphatic endothelium in different malignancies, and is of value in the routine evaluation of lymphatic invasion in esophageal cancer (Kozłowski et al, 2011). Clone D2-40 was reported to be an excellent immunohistochemical marker of cutaneous Kaposi's sarcomas, (Kahn et al, 2002), and may be useful in the differential diagnosis of epithelioid malignant mesothelioma versus adenocarcinoma (Chu et al, 2005).

Formulation:	PBS State: Purified State: Liquid purified IgG fraction Stabilizer: 1% BSA Preservative: 0.09% Sodium Azide
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	podoplanin
Database Link:	Entrez Gene 10630 Human Q86YL7
Background:	Podoplanin (PDPN) is an O-glycosylated transmembrane glycoprotein that is selectively expressed by, and is a marker of, lymphatic endothelial cells. In normal tissue the 38 kDa protein is also present in human lung, placenta, heart, skeletal muscle and kidney podocytes. It is not found in the blood vasculature (Breiteneder-Geleff et al, 1999, Wicki and Christofori, 2007). The function of podoplanin is yet to be fully elucidated; however, it may be involved in cell migration and/or actin cytoskeleton organization. It is required for normal lung cell proliferation and alveolus formation at birth, and can induce platelet aggregation (Ramirez et al, 2003, Wicki and Christofori, 2007). The function of podoplanin is yet to be elucidated; however, it may be involved in cell migration and/or actin cytoskeleton organisation. It is required for normal lung cell proliferation and alveolus formation at birth, and can induce platelet aggregation. The homologous protein in other species has been described as a differentiation antigen and influenza-virus receptor. Podoplanin is selectively expressed in lymphangiomas, Kaposi sarcomas, and a subset of angiosarcomas with probable lymphatic differentiation.
Synonyms:	Glycoprotein 36, PA2.26 antigen, T1-alpha, Aggrus, PDPN, GP36, PSEC0003, PSEC0025