CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	Podoplanin, Mouse, clone pMab-1		
Catalog number	HM1141-20UG		
Lot number	-	**Expiry date**	-
Volume	200 µl	**Amount**	20 µg
Formulation	0.2 µm filtered in PBS+0.1%BSA	**Concentration**	100 µg/ml
Host Species	Rat IgG2a	**Conjugate**	None
Endotoxin	<24 EU/mg	**Purification**	Protein G
Storage	4°C		

Application notes

	IHC-F	IHC-P	IF	FC	FS	IA	IP	W
Reference #	1	1	1	3	2			1,3
Yes	●	●	●	●	●			●
No								
N.D.						●	●	

N.D.= Not Determined; IHC = Immuno histochemistry; F = Frozen sections; P = Paraffin sections; IF = Immuno Fluorescence; FC = Flow Cytometry; FS = Functional Studies; IA = Immuno Assays; IP = Immuno Precipitation; W = Western blot

Dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50.

- IHC-P: High temperature citrate pretreatment was used. Fixing the tissue longer than 24 hours leads to masking or destruction of podoplanin antigen.
- W: A reduced or non-reduced sample treatment and SDS-Page can be used. The band size is ~40 kDa.

General Information

Description

Monoclonal antibody pMab-1 recognizes mouse Podoplanin (PDPN; agrrus). Podoplanin is a small type_I transmembrane sialoglycoprotein expressed on a broad range of cell types and involved in platelet aggregation and tumor metastasis. The ca 38 kDa mouse protein was initially identified as a biomarker of lympatic endothelium, alveolar epithelium and glomerular podocytes. Expression has also been found in many tumors. However the functional role of PDPN is still poorly understood. Podoplanin consists of an extracellular domain, transmembrane domain and a cytoplasmic tail. In its extracellular domain it possesses a platelet aggregation stimulating (PLAG) domain. Podoplanin has got three PLAG domains of which PLAG3 is critical for binding with C-type lectin receptor-2 (CLEC-2). This PDPN specific receptor mediates platelet aggregation. This interaction is required to initiate and maintain separation of blood and lymphatic vessels and can be critical in process of cancer metastasis. This may lead to PDPN as possible therapeutic target. Antibody PMab-1 is produced against the platelet aggregation-stimulating domain of mouse PDPN and can be applied in western blotting, FACS and immunohistochemistry. Administration of PMab-1 in vivo reduces lymphangiogenesis in the corneal suture and ear wound healing models. PMab-1 also suppresses the infiltration of thioglycollate-induced macrophages at the site of wound healing. Furthermore, administration of PMab-1 leads to a significant suppression of the rejection reaction in the corneal transplantation model.

Immunogen

Synthetic peptides, corresponding to amino acids 38–51 of mouse podoplanin (Ref. 1)

Aliases

Glycoprotein 38, Gp38, OTS-8, PA2.26 antigen, Transmembrane glycoprotein E11, E11

Gene

Gene name: Pdpn, Gp38 Entrez Gene ID: 14726 Uniprot: Q62011

References

1. Kaji, C et al; Immunohistochemical Examination of Novel Rat Monoclonal Antibodies against Mouse and Human Podoplanin. Acta Histo Cyto 2012, *45*: 227
2. Maruyama, Y et al; The Effect of Podoplanin Inhibition on Lymphangiogenesis Under Pathological Conditions. Inves Opt & Vis Science 2014, *55*: 4813
3. Fujii Y, et al. MAP tag: A novel tagging system for protein purification and detection. Monoclon. Antib. Immunodiagn. Immunother 2016, *35*:: 293

Storage&stability

Product should be stored at 4°C. Under recommended storage conditions, product is stable for at least one year.

Precautions For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.

We hereby certify that the above-stated information is correct and that this product has been successfully tested by the Quality Control Department. This product was released for sale according to the existing specifications. This document has been produced electronically and is valid without a signature.

Approved by Manager of QC	Date
Brenda Teunissen	13/11/2020

Do you have any questions or comments regarding this product? Please contact us via support@hycultbiotech.com.