Product Datasheet

Anti-Podoplanin (MAP tag) [PMab-1] (orb2645833)

Catalog Number	orb2645833
Category	Antibodies
Description	Anti-Podoplanin (MAP tag) [PMab-1]
Target	Podoplanin (MAP tag)
Clonality	Monoclonal
Species/Host	Rat
Isotype	IgG
Conjugation	Unconjugated
Reactivity	Mouse
Concentration	1 mg/ml
Buffer/Preservatives	PBS with 0.02% Proclin 300.
Immunogen	This antibody was raised by immunising rats with 14-residue synthetic peptide mpp3851, which corresponds to amino acids 38-51 (GDGMVPPGIEDKIT) of the platelet-aggregation-stimulating (PLAG) domain of mouse podoplanin. Spleen cells were then harvested, and fused to P3U1 cells to generate stable hybridomas.
UniProt ID	**Q62011**
Tested applications	Blocking, ELISA, Epitope Tagging, FACS, FC, IHC, WB

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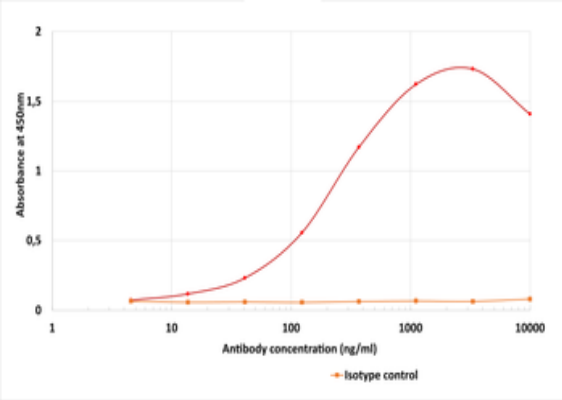
Specificity	This antibody is specific for amino acids 38-51 (GDGMVPPGIEDKIT) of the platelet-aggregation-stimulating (PLAG) domain of mouse podoplanin (PDPN). This antibody, therefore, possesses high affinity and specificity for the MAP epitope tag (GDGMVPPGIEDK), which is derived from the PLAG domain of murine podoplanin. PDPN is a type I transmembrane protein that interacts with the platelet receptor C-type lectin-like receptor-2 (CLEC-2). PDPN is expressed by a wide variety of cells, including podocytes, lymphatic endothelial cells and type I alveolar cells. PDPN is also upregulated on certain cancer cells, where it mediates tumour-induced platelet aggregation by binding to CLEC-2 on platelets. Chihara (2018) associated Podoplanin with a co-inhibitory receptor in T-cell activation along with PD-1, TIM-3, LAG-3 and TIGIT.
Clone Number	PMab-1
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Note	For research use only
Expiration Date	12 months from date of receipt.



ELISA using PMab-1 and Multi Tag protein 2. Binding curves of the mouse IgG1 chimeric version of the anti-MAP antibody PMab-1 (red line) and isotype control (orb256381, anti-fluorescein; orange line) to an ELISA plate coated with Multi Tag protein 2 at a concentration of 5 ug/ml.

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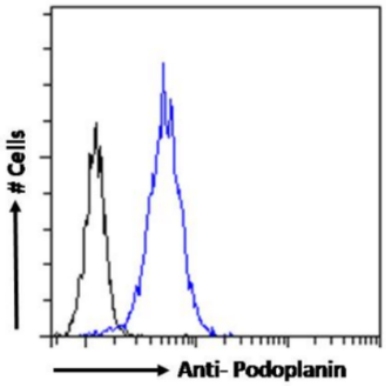
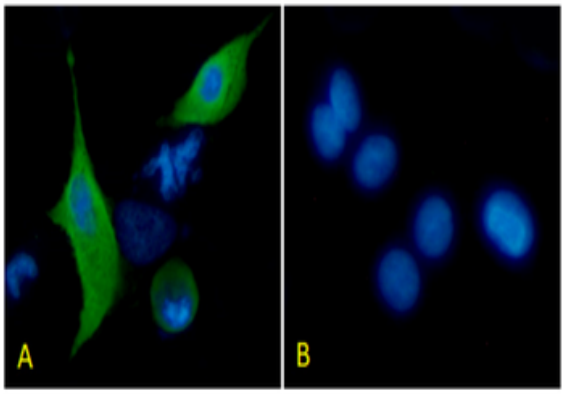
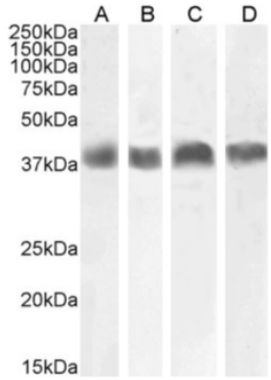


Flow-cytometry using the anti-Podoplanin (MAP tag) antibody PMab-1 NIH3T3 cells were stained with anti-Fluorescein IgG antibody (4-4-20; isotype control, black line) or the rabbit IgG-chimeric version of PMab-1 (orb758777, blue line) at a dilution of 1:100 for 1h at RT. After washing, bound antibody was detected using a goat anti-rabbit IgG AlexaFluor® 488 antibody at a dilution of 1:1000 and cells analyzed using a FACSCanto flow-cytometer.



Immunofluorescence staining of HEK293 cells with Anti-Podoplanin (MAP tag) PMab-1. Immunofluorescence analysis of paraformaldehyde fixed HEK293 cells transfected with Podoplanin (MAP tag) expressing plasmid (A) and non-transfected HEK293 cells (B), permeabilized with 0.15% Triton stained with the chimeric rabbit IgG version of PMab-1 (orb758777) (1:200 dilution) for 1h followed by Alexa Fluor® 488 secondary antibody (1:1000 dilution), showing membrane and cytoplasmic staining. The nuclear stain is DAPI (blue).



Western Blot using anti-Podoplanin (MAP tag) antibody PMab-1 (orb758777) Mouse thymus (A), mouse brain (B), NIH3T3 cells (C) and mouse kidney (D) lysates (35 µg protein in RIPA buffer) were resolved on a 10% SDS PAGE gel and blots probed with the chimeric rabbit IgG version of 1B4 (orb613976) at 0.01 µg/ml, 0.1 µg/ml, 0.001 µg/ml and 0.003 µg/ml, respectively, before detection using an anti-rabbit secondary antibody. A primary incubation of 1h was used and protein was detected by chemiluminescence.

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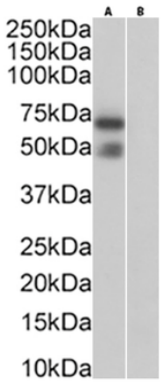

Western Blot using Anti-Podoplanin (MAP tag) antibody PMab-1. Podoplanin (MAP tag) expressing plasmid transfected (A) and non-transfected (B) HEK293 cells lysate (3 µg protein in RIPA buffer) were resolved on a SDS PAGE gel and blots were probed with the chimeric rabbit version of PMab-1 (orb758777) at 0.00001 µg/ml before detection using an anti-rabbit secondary antibody. A primary incubation of 1h was used and protein was detected by chemiluminescence.

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