abcam

Product datasheet

Anti-M6PR (cation dependent) antibody [EPR7691] ab134153

KO VALIDATED Recombinant RabMAb

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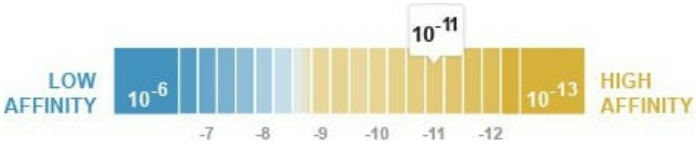
Overview

Product name	Anti-M6PR (cation dependent) antibody [EPR7691]
Description	Rabbit monoclonal [EPR7691] to M6PR (cation dependent)
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), WB, ICC/IF **Unsuitable for:** IHC-P
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide corresponding to Human M6PR (cation dependent) aa 250 to the C-terminus (C terminal). Database link: **P20645**
Positive control	WB: HAP1, A549, and Human uterus lysates ICC/IF: HeLa cell lysate Flow Cyt (intra): A549 cells
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Dissociation constant (K_D)	$K_D = 6.30 \times 10^{-11}$ M



Learn more about K_D

Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 40% Glycerol (glycerin, glycerine), 59% PBS, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR7691
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab134153 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/80.
WB	★★★☆☆ (1)	1/1000 - 1/10000. Predicted molecular weight: 31 kDa.
ICC/IF	★★★★☆ (1)	1/50 - 1/100.

Application notes Is unsuitable for IHC-P.

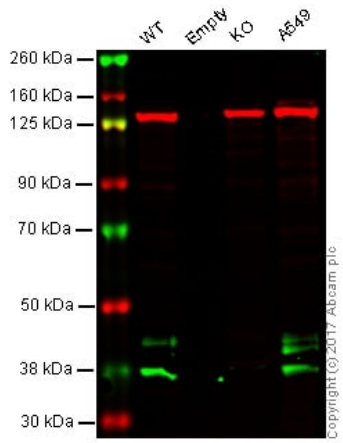
Target

Function Transport of phosphorylated lysosomal enzymes from the Golgi complex and the cell surface to lysosomes. Lysosomal enzymes bearing phosphomannosyl residues bind specifically to mannose-6-phosphate receptors in the Golgi apparatus and the resulting receptor-ligand complex is transported to an acidic prelyosomal compartment where the low pH mediates the dissociation of the complex.

Domain The extracellular domain is homologous to the repeating units (of approximately 147 AA) of the cation-independent mannose 6-phosphate receptor.

Cellular localization Lysosome membrane.

Images

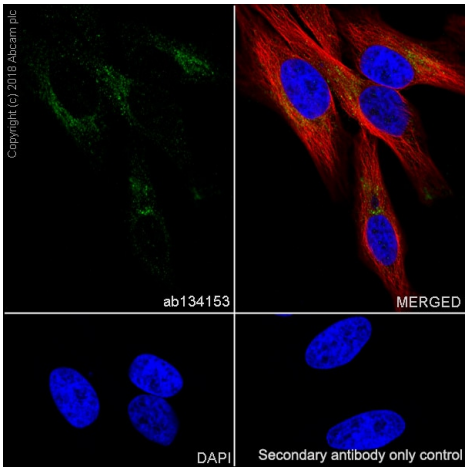


Western blot - Anti-M6PR (cation dependent) antibody [EPR7691] (ab134153)

Lane 1: Wild type HAP1 whole cell lysate (20 µg)
Lane 2: Empty
Lane 3: M6PR knockout HAP1 whole cell lysate (20 µg)
Lane 4: A549 whole cell lysate (20 µg)

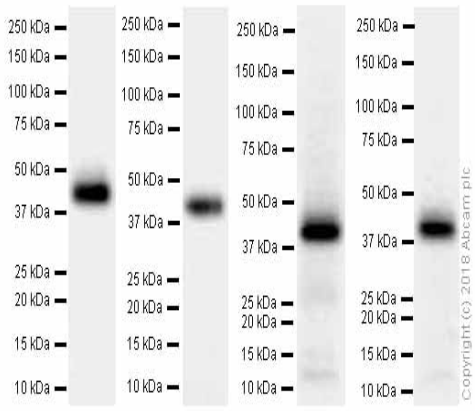
Lanes 1 - 4: Merged signal (red and green). Green - unpurified ab134153 observed at 46 kDa. Red - loading control, **ab18058**, observed at 130 kDa.

ab134153 was shown to specifically react with M6PR when M6PR knockout samples were used. Wild-type and M6PR knockout samples were subjected to SDS-PAGE. ab134153 and **ab18058** (Mouse anti-Vinculin loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/10000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed **ab216773** and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed **ab216776** secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.



Immunocytochemistry/ Immunofluorescence - Anti-M6PR (cation dependent) antibody [EPR7691] (ab134153)

Immunocytochemistry/ Immunofluorescence analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling M6PR (cation dependent) with Purified ab134153 at 1:100 dilution (8.6 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor®594) 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor®488, **ab150077**) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Western blot - Anti-M6PR (cation dependent) antibody [EPR7691] (ab134153)

All lanes : Anti-M6PR (cation dependent) antibody [EPR7691] (ab134153) at 0.8 µg/ml (purified)

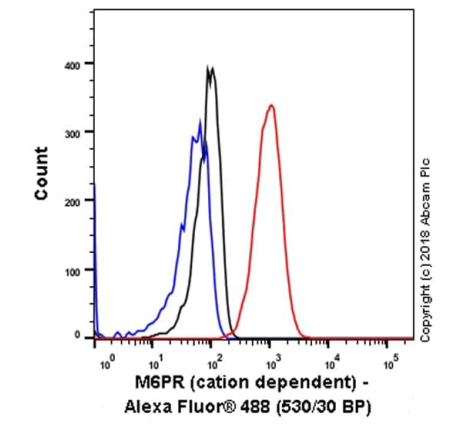
Lane 1 : A549 (Human lung carcinoma epithelial cell) whole cell lysates
Lane 2 : Mouse kidney lysates
Lane 3 : Rat kidney lysates
Lane 4 : Rat spleen lysates

Lysates/proteins at 15 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

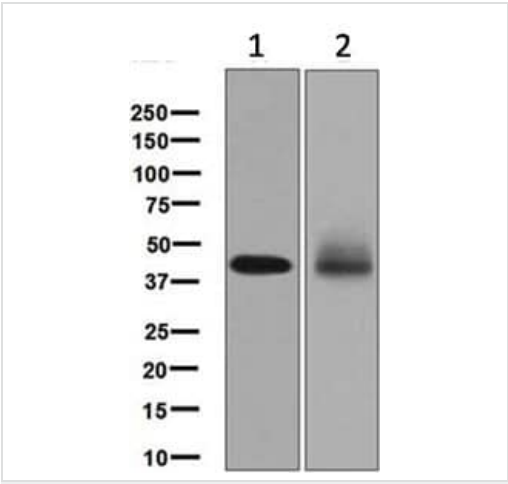
Predicted band size: 31 kDa

Blocking and diluting buffer: 5% NFDM/TBST.



Flow Cytometry (Intracellular) - Anti-M6PR (cation dependent) antibody [EPR7691] (ab134153)

Intracellular Flow Cytometry analysis of A549 (Human lung carcinoma epithelial cell) cells labeling M6PR (cation dependent) with purified ab134153 at 1/80 dilution (10 µg/ml) (red). Cells were fixed with 4% Paraformaldehyde. A Goat anti rabbit IgG (Alexa Fluor® 488) secondary antibody was used at 1/2000 dilution. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Western blot - Anti-M6PR (cation dependent) antibody [EPR7691] (ab134153)

All lanes : Anti-M6PR (cation dependent) antibody [EPR7691] (ab134153) at 1/1000 dilution (Unpurified)

Lane 1 : A549 lysates

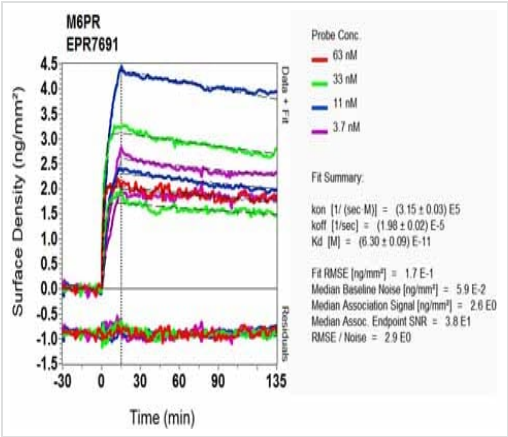
Lane 2 : Human uterus lysates

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 31 kDa

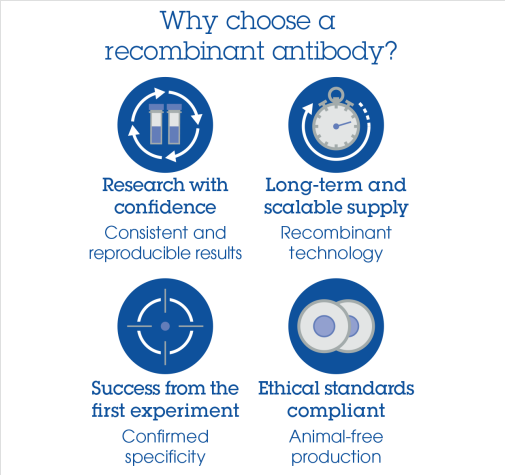


OI-RD Scanning - Anti-M6PR (cation dependent) antibody [EPR7691] (ab134153)

Equilibrium disassociation constant (K_D)

Learn more about K_D

Click here to learn more about K_D



Anti-M6PR (cation dependent) antibody [EPR7691] (ab134153)

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