

# P-Glycoprotein Monoclonal Antibody (C219)

Product Details	
Size	250 µL
Species Reactivity	Bovine, Fish, Hamster, Human, Mouse, Rat, Zebrafish
Published Species	Dog, Rat, Fish, Mouse, Human
Host/Isotype	Mouse / IgG1
Class	Monoclonal
Type	Antibody
Clone	C219
Conjugate	Unconjugated
Immunogen	SDS-solubilized plasma membranes of a multidrug resistant Chinese hamster ovary (CHO) cell line and a human cell line.
Form	Liquid
Concentration	0.72 mg/mL
Purification	purified
Storage buffer	PBS with 1% BSA
Contains	0.1% sodium azide
Storage conditions	Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.
RRID	AB_795165

Applications	Tested Dilution	Publications
Western Blot (WB)	1:50-1:600	20 Publications
Immunohistochemistry (IHC)	-	4 Publications
Immunohistochemistry (Paraffin) (IHC (P))	1:25	-
Immunohistochemistry (Frozen) (IHC (F))	5-10 µg/mL	-
Immunocytochemistry (ICC/IF)	Assay-dependent	3 Publications
Flow Cytometry (Flow)	5-10 µg for 1x10 <sup>6</sup> cells	-
ELISA (ELISA)	Assay-dependent	-
Immunoprecipitation (IP)	Assay-dependent	-

## Product Specific Information

Recommended positive controls: Cell lines or frozen tissue, such as liver or colon.

MA1-26528 is expected to cross react with a wide range of mammals due to sequence homology.

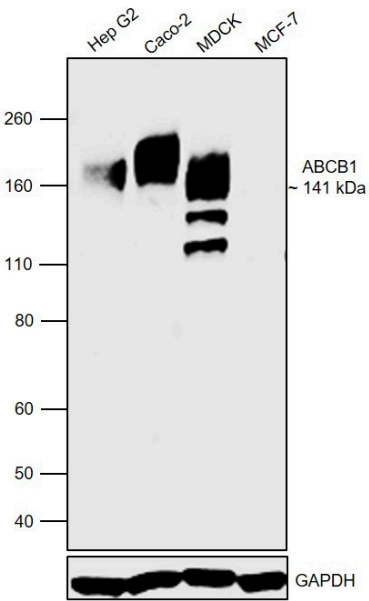
Store product as a concentrated solution. Centrifuge briefly prior to opening the vial.

This clone recognizes an internal, highly conserved amino acid sequence (VQEALD and VQAALD) found in both protein isoforms, MDR1 P-glycoprotein (~170kDa) and MDR3 P-glycoprotein (~140kDa). In Western blot, boiling samples may reduce visibility of the protein.

For flow cytometry, cells should be fixed in 3.7% formaldehyde for 10 min at room temperature to permeabilize the cell membrane. Incubate cells with 5-10 µg antibody for 30-60 min at 4°C.

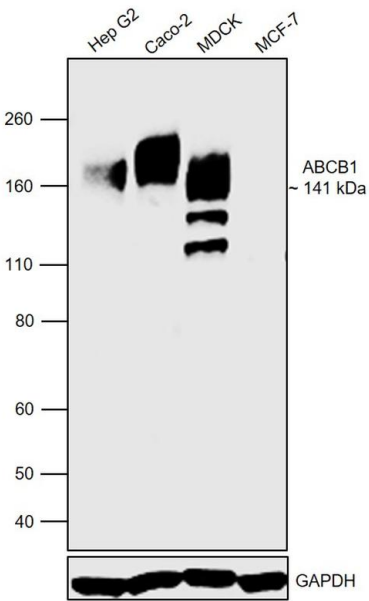


Product Images For P-Glycoprotein Monoclonal Antibody (C219)



P-Glycoprotein Antibody (MA1-26528)

Antibody specificity was demonstrated by detection of differential basal expression of the target across cell lines tested owing to their inherent genetic constitution. Relative expression of ABCB1 was observed in HepG2, Caco-2 and MDCK in comparison to MCF-7 using Anti-P-Glycoprotein Monoclonal Antibody (C219) (Product # MA1-26528) in Western Blot. {RE}

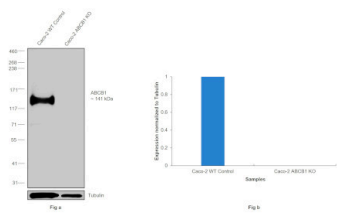


P-Glycoprotein Antibody (MA1-26528) in WB

Western blot was performed using Anti-P-Glycoprotein Monoclonal Antibody (C219) (Product # MA1-26528) and due to glycosylation, 160-230 kDa band corresponding to ABCB1 was observed across cell lines tested except MCF-7 which is reported to be negative. Whole cell extracts (30 µg lysate) of Hep G2 (Lane 1), Caco-2 (Lane 2), MDCK (Lane 3) and MCF-7 (Lane 4) were electrophoresed using NuPAGE™ 4-12% Bis-Tris Protein Gel (Product # NP0322BOX). Resolved proteins were then transferred onto a nitrocellulose membrane (Product # LC2001) by XCell SureLock™ Mini-Cell and XCell II™ Blot Module (Product # EI0002). The blot was probed with the primary antibody (4 µg /ml) and detected by chemiluminescence with Goat anti-Mouse IgG (H+L) Superclonal™ Recombinant Secondary Antibody, HRP (Product # A28177, 1: 4000 dilution) using the iBright FL 1000 (Product # A32752). Chemiluminescent detection was performed using SuperSignal™ West Dura Extended Duration Substrate (Product # 34076).

P-Glycoprotein Antibody (MA1-26528)

Antibody specificity was demonstrated by CRISPR-Cas9 mediated knockout of target protein. A loss of signal was observed for target protein in ABCB1 KO cell line compared to control cell line using P-Glycoprotein Monoclonal Antibody (C219) (Product # MA126528). {KO}



🔖 27 References

Western Blot (20)

<p>Frontiers in aging neuroscience</p> <p><b>Age Drives Distortion of Brain Metabolic, Vascular and Cognitive Functions, and the Gut Microbiome.</b></p> <p>"MA1-26528 was used in Western Blotting to determine the contribution of ageing processes to Alzheimer's disease aetiology."</p> <p>Authors: Hoffman JD,Parikh I,Green SJ,Chlipala G,Mohney RP,Keaton M,Bauer B,Hartz AMS,Lin AL</p>	<p><b>Year</b> 2023</p> <p><b>Species</b> Mouse</p>
<p>Cells</p> <p><b>Is P-Glycoprotein Functionally Expressed in the Limiting Membrane of Endolysosomes? A Biochemical and Ultrastructural Study in the Rat Liver.</b></p> <p>"Published figure using P-Glycoprotein monoclonal antibody (Product # MA1-26528) in Western Blot"</p> <p>Authors: Gericke B,Wienböcker I,Brandes G,Löscher W</p>	<p><b>Year</b> 2022</p>

View more WB references on thermofisher.com

Immunohistochemistry (4)

<p>Neurotrauma reports</p> <p><b>P-glycoprotein Expression Is Upregulated in a Pre-Clinical Model of Traumatic Brain Injury.</b></p> <p>"MA1-26528 was used in Immunohistochemistry to suggest that increased expression of Pgp after rmCHI may reduce the brain accumulation of therapeutic drugs that are Pgp substrates."</p> <p>Authors: Vita SM,Redell JB,Maynard ME,Zhao J,Grill RJ,Dash PK,Grayson BE</p>	<p><b>Year</b> 2021</p> <p><b>Species</b> Mouse</p>
<p>Frontiers in aging neuroscience</p> <p><b>Preventing P-gp Ubiquitination Lowers A Brain Levels in an Alzheimer's Disease Mouse Model.</b></p> <p>"Published figure using P-Glycoprotein monoclonal antibody (Product # MA1-26528) in Immunofluorescence"</p> <p>Authors: Hartz AMS,Zhong Y,Shen AN,Abner EL,Bauer B</p>	<p><b>Year</b> 2020</p>

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ICC/IF (3)

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