P-glycoprotein monoclonal antibody (C219)

This antibody is covered by our Worry-Free Guarantee.

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ALX-801-002-C100	1ml

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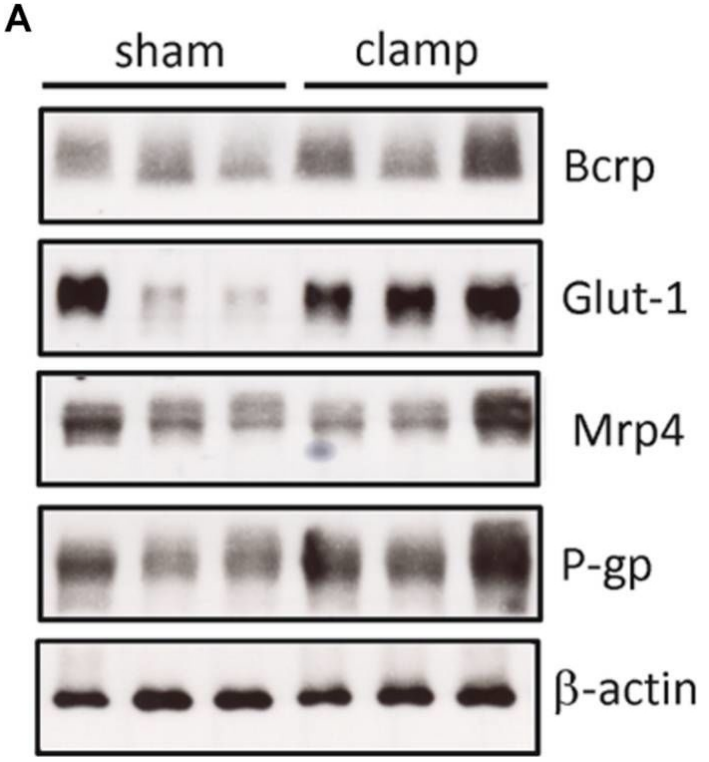
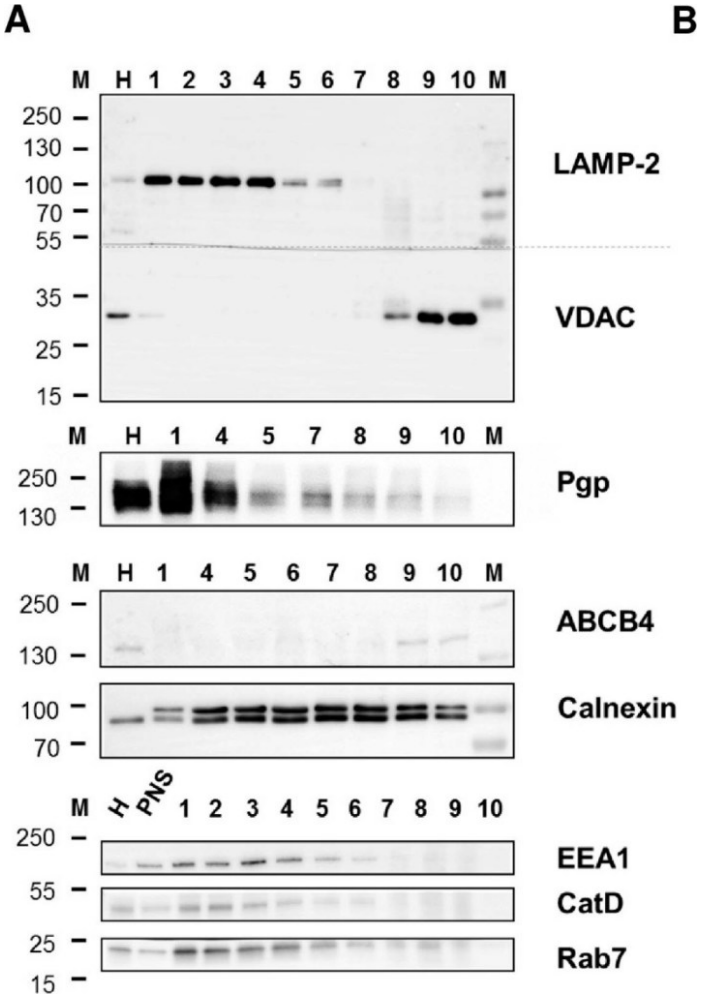
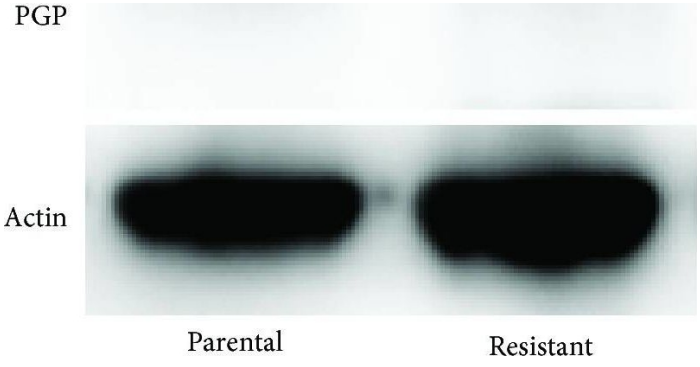


Expression of selected transporters and tight junction proteins in brain capillaries of mice exposed to bilateral renal ischemia/reperfusion injury at the protein level. Brain capillaries were isolated from frozen brains of mice exposed to bilateral renal ischemia/reperfusion injury followed by protein extraction and Western blot (A). The protein content of Bcrp (Abcg2, ATP Binding Cassette Subfamily G Member 2) (B), Glut1 (Slc2a1, Solute Carrier Family 2 Member 1) (C), Mrp4 (Abcc4, ATP Binding Cassette Subfamily C Member 4) (D), and P-gp (Mdr1, Abcb1b ATP Binding Cassette Subfamily B Member1) (E) was normalized to β-actin and is shown as average of n = 3 with standard deviations. *p < 0.05, ***p < 0.001.



Biochemical characterization of rat liver subcellular fractions and Pgp localization in endolysosomal-enriched fractions. Rat liver subcellular fractionation was performed by low speed centrifugation and subsequent density gradient ultracentrifugation. Recovery and purity of the cell organelles from collected gradient fractions 1–10 (top to bottom) were analyzed by separation of equal protein amounts (5 µg) of each fraction and whole-cell homogenate (H) and post-nuclear supernatant (PNS) by SDS-PAGE and immunoblotting. Homogenate and PNS data were similar; thus, PNS is shown here for only some proteins. Endolysosomes were detected using the LAMP-2 and Rab7 marker proteins and the luminal lysosomal protease cathepsin D (CatD). EEA1 was used as a marker for early endosomes. The purity of the endolysosomal fractions was assessed by organelle markers for mitochondria (VDAC), canalicular plasma membrane (ABCB4), and ER (calnexin). (A) Representative Western blots showing the distribution of the different organelle protein markers and Pgp in the gradient fractions. Some fractions (mainly 2 and 3) contained low protein amounts and thus could not be characterized for the presence of all marker proteins for each individual gradient. Therefore, marker quantification in the gradient fractions was repeatedly performed for different fractionations. (B) Quantification of the protein band intensities for the marker proteins in the different



Expression and functional analysis of MDR1. (a, b) The expression of TUBB3 was investigated by real-time quantitative PCR and Western blotting in each cell line. Values represent mean ± SD. □P < 0.05, versus parental cell line. (c) Functional activity of MDR1 was analyzed by EFLUXX-ID Green Multidrug Resistance Assay. The left black curve shows unstained cells as a negative control. The right blue curve shows cells stained with EFLUXX-ID Green.

Handling & Storage

Handling	Keep at +4°C. Do not freeze.
Short Term Storage	+4°C
Long Term Storage	+4°C
Shipping	Blue Ice

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	ABCB1, CD243, P-glycoprotein 1
Application	ICC, IHC (FS), IHC (PS), IP
Application Notes	Flow Cytometry: cell permeabilization required. Detects bands of ~170kDa (MDR1 P-glycoprotein) and of ~140kDa (MDR3 P-glycoprotein) by Western blot. Cited applications include ELISA, IF, FC, and WB
Clone	C219
Crossreactivity	Cross-reacts with a ~200kDa protein which migrates in the same position as myosin and with C-erbB2 protein (p185c-erbB2).
Formulation	Phosphate-buffered solution with BSA and 0.09% NaN3
Host	Mouse
Immunogen	SDS-solubilized plasma membranes of an MDR (multidrug resistant) Chinese hamster ovary (CHO) cell line and a human cell line.
Isotype	IgG1κ

Positive Control

Cell lines: Appropriate drug-sensitive parental cell lines and their multidrug resistant derivatives prepared by the same methods as the test specimens can be used as control materials.Tissue: Human liver (positive staining detected along luminal surfaces of bile canaliculi) or human colon (positive staining localized to luminal surface of secretory epithelium) are recommended.

Recommendation Dilutions/Conditions

Immunohistochemistry (paraffin sections):- For optimal staining, the sections should be pretreated with an antigen unmasking solution.- The antibody may be diluted to ≥1:25 for biotin based detection systems.- For optimal staining, the primary antibody should be incubated 60 minutes at room temperature.Western Blot (1:50-1:100)Suggested dilutions/conditions may not be available for all applications. Optimal conditions must be determined individually for each application.

Species Reactivity

Dog, Human, Mouse, Primate, Rat

Specificity

Recognizes an internal, highly conserved amino acid sequence (VQEALD and VQAALD) found in both protein isoforms, P-glycoprotein and MDR3 P-glycoprotein.

UniProt ID

P08183

Worry-free Guarantee

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