DATASHEET

VDAC1/Porin Mouse Monoclonal Antibody(ARA489)

CAT. NO. ARA5803

KEY FEATURES

Target	VDAC1/Porin	**Source / Host**	Mouse
Reactivity	Human, Mouse, Rat	**Clonality**	Monoclonal
Applications	WB,IF/ICC,FC,ELISA	**Conjugation**	Unconjugated
Isotype	IgG3	**Storage**	at -20°C

BACKGROUND

VDAC1, also known as porin 31HL, porin 31HM and plasmalemmal porin, belongs to the eukaryotic mitochondrial porin family. It adopts an open conformation at low or zero membrane potential and a closed conformation at potentials above 30-40 mV, forming a channel through the mitochondrial outer membrane and also the plasma membrane. Unlike other membrane transport proteins, porins are large enough to allow passive diffusion. VDAC1 is subject to both phosphorylation and acetylation (PMID:23233904), and its apparent molecular weight is 30-37 kDa (PMID:14573604; 23754752; 25681439). Hypoxic conditions trigger cleavage of the VDAC1 C-terminus to yield a 26-kDa truncated but active form (PMID:22389449; 23233904).

APPLICATION

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:5,000 - 1:50,000
IF/ICC	1:200 - 1:800
FC	0.80 µg per 10^6 cells in a 100 µL suspension
ELISA	Assay-dependent

*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

OVERVIEW

Description	Mouse monoclonal antibody to VDAC1/Porin for WB, IF/ICC, FC and ELISA.
Specificity	Recognizes endogenous levels of VDAC1/Porin protein.
Antibody Type	Primary antibody
Immunogen	Peptide.
Molecular Weight	Predicted: 31 kDa; Observed: 35-37 kDa
Purification	Protein A purification
Isotype	IgG3
Form/Buffer	Liquid in PBS with 0.02% sodium azide and 50% glycerol, pH 7.3.
Alternative Names	Porin, VDAC1, hVDAC1, Plasmalemmal porin
Gene Symbol	VDAC1
Entrez Gene	7416
SwissProt	P21796

*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact info@arexbio.com or your local distributor.

*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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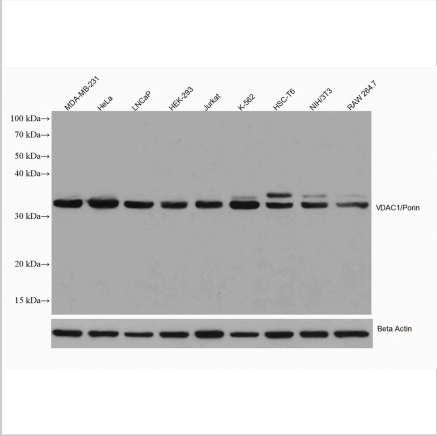
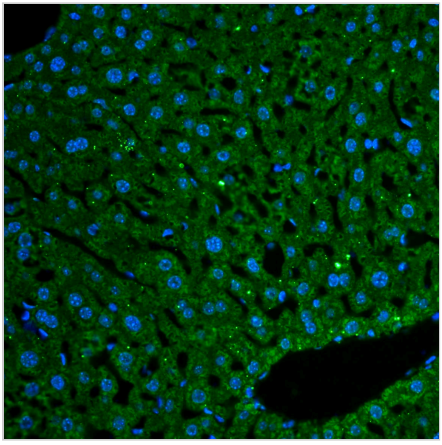
DATA



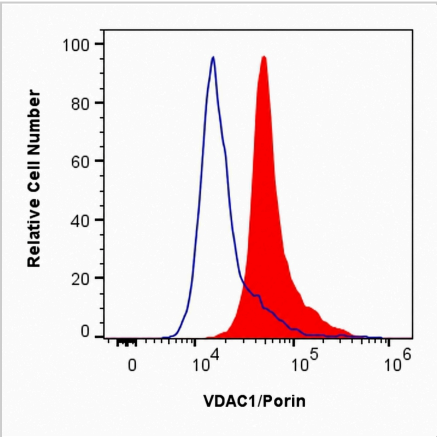
Western blot analysis of VDAC1/Porin on different lysates with VDAC1/Porin Mouse Monoclonal Antibody(ARA489) at 1:20,000 dilution.

Lane 1: MDA-MB-231 whole cell lysate
Lane 2: HeLa whole cell lysate
Lane 3: LNCaP whole cell lysate
Lane 4: HEK-293 whole cell lysate
Lane 5: Jurkat whole cell lysate
Lane 6: K-562 whole cell lysate
Lane 7: HSC-T6 whole cell lysate
Lane 8: NIH/3T3 whole cell lysate
Lane 9: RAW264.7 whole cell lysate

Predicted band size: 31 kDa
Observed band size: 35-37 kDa



Immunofluorescent analysis of 4% PFA-fixed paraffin-embedded mouse liver tissue using VDAC1/Porin Mouse Monoclonal Antibody(ARA489) at 1:400 dilution and AREX® Fluor 488-conjugated Goat Anti-Mouse IgG (H+L). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Flow cytometric analysis of HepG2 cells with VDAC1/Porin Mouse Monoclonal Antibody(ARA489) at 0.80 µg per 10^6 cells (red) compared with Mouse IgG3 isotype control (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer.

STORAGE

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

NOTE

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.