For Research Use Only

VDAC1/Porin Polyclonal antibody

Catalog Number:55259-1-AP Featured Product 121 Publications

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Basic Information

Catalog Number:
55259-1-AP

Size:
600 μg/ml

Source:
Rabbit

Isotype:
IgG

GenBank Accession Number:
NM_003374

GeneID (NCBI):
7416

UNIPROT ID:
P21796

Full Name:
voltage-dependent anion channel 1

Calculated MW:
31 kDa

Observed MW:
31 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB 1:1000-1:6000
IHC 1:50-1:500
IF 1:50-1:500

Applications

Tested Applications:
FC, IF-P, IHC, WB, ELISA

Cited Applications:
CoIP, FC, IF, IHC, PLA, WB

Species Specificity:
human, mouse, rat

Cited Species:
human, chicken, rat, mouse, monkey, hamster, pig, canine, bovine

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : RAW 264.7 cells, rat liver tissue, HepG2 cells, human skeletal muscle tissue, HEK-293 cells, HeLa cells, mouse liver tissue, A431 cells, mouse heart tissue, ROS1728 cells, mouse brain tissue, rat brain tissue, rat heart tissue, NIH/3T3 cells

IHC : human heart tissue, human liver tissue

IF : human liver cancer tissue,

Background Information

VDAC1, also named as VDAC, porin 31HM, porin 31HL 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, to form 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. Studies have shown that VDAC1 is subject to both phosphorylation and acetylation (PMID: 23233904). The apparent molecular weight of VDAC1 is 30-37 kDa (PMID: 14573604; 23754752; 25681439). Hypoxic conditions were found to trigger cleavage of the VDAC1 C-terminal to yield a 26-kDa truncated but active form (PMID: 22389449; 23233904). This antibody is specific to VDAC1.

Notable Publications

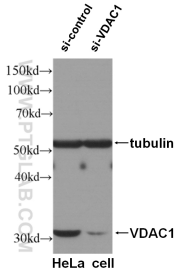
Author	Pubmed ID	Journal	Application
Jing Sun	34650437	Front Pharmacol	WB
Tianying Pan	29163791	Oncotarget	WB
Lian Xue	36186902	J Cancer	WB,IF

Storage

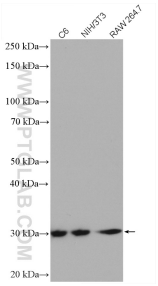
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

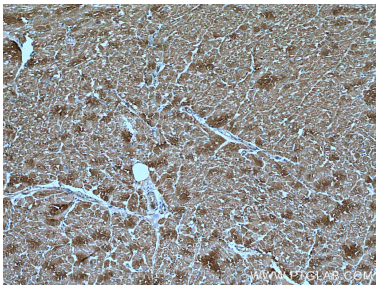
Selected Validation Data



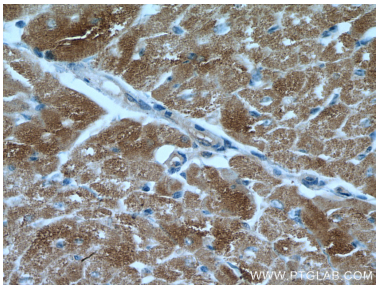
WB result of VDAC1 antibody (55259-1-AP, 1:2000) with si-Control and si-VDAC1 transfected HeLa cells.



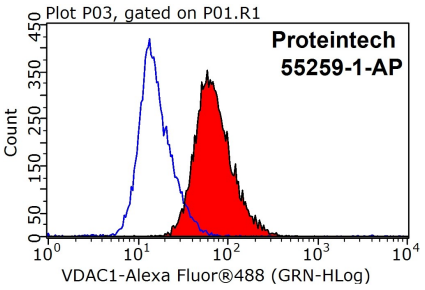
Various lysates were subjected to SDS PAGE followed by western blot with 55259-1-AP (VDAC1/Porin antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



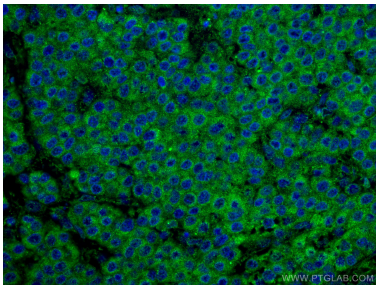
Immunohistochemical analysis of paraffin-embedded human heart tissue slide using 55259-1-AP (VDAC1/Porin antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human heart tissue slide using 55259-1-AP (VDAC1/Porin antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



1X10^6 HepG2 cells were stained with 0.2ug VDAC1/Porin antibody (55259-1-AP, red) and control antibody (blue). Fixed with 90% MeOH blocked with 3% BSA (30 min). Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) with dilution 1:1000.



Immunofluorescent analysis of (4% PFA) fixed human liver cancer tissue using VDAC1/Porin antibody (55259-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).