Anti-VDAC1 Antibody

R1307-1

Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human, Zebrafish
Applications:	WB, IF-Cell, IHC-P
Molecular Wt:	Predicted band size: 31 kDa

Description: Voltage-dependent anion-selective channel (VDAC1) (also referred to as porin, isoform 1) is a small protein, originally discovered in the outer membrane of mitochondria where it constitutes the major pore-forming protein. The porin protein VDAC1 allows to the outer-most membrane of the mitochondrion free permeability to low molecular-weight solutes. VDAC1 has been shown to co-immunoprecipitate with the anti-apoptotic protein Bcl-2 and suggested to be involved in forming the mitochondrial pore which releases cytochrome c during apoptosis.

Immunogen: Synthetic peptide within human VDAC1 aa 188-231.

Positive control: HeLa cell lysate, Jurkat cell lysate, A431 cell lysate, Raji cell lysate, HepG2 cell lysate, SW480 cell lysate, A549 cell lysate, human brain tissue, Hela.

Subcellular location: Mitochondrial membrane, cell membrane

Database links: SwissProt: P21796 Human

Recommended Dilutions:

WB	1:1,000
IHC-P	1:200
IF-Cell	1:200

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃ or -80℃. Avoid repeated freeze / thaw cycles.

Purity: Immunogen affinity purified.

Images

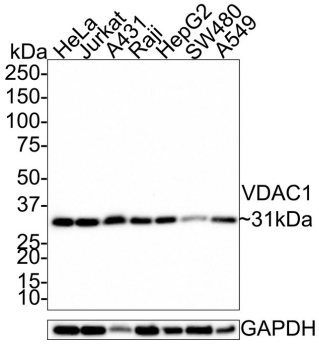

Fig1: Western blot analysis of VDAC1 on different lysates with Rabbit anti-VDAC1 antibody (R1307-1) at 1/1,000 dilution.

Lane 1: HeLa cell lysate
Lane 2: Jurkat cell lysate
Lane 3: A431 cell lysate
Lane 4: Raji cell lysate
Lane 5: HepG2 cell lysate
Lane 6: SW480 cell lysate
Lane 7: A549 cell lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 31 kDa
Observed band size: 31 kDa

Exposure time: 1 minute 30 seconds;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (R1307-1) at 1/1,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:100,000 dilution was used for 1 hour at room temperature.

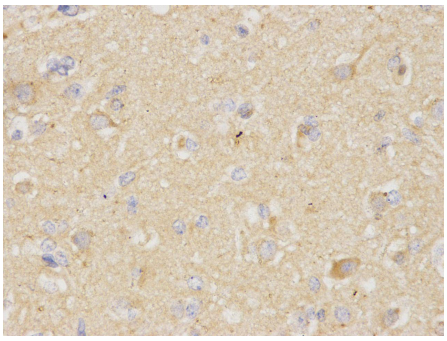

Fig2: Immunohistochemical analysis of paraffin-embedded human brain tissue using anti-VDAC1 rabbit polyclonal antibody.

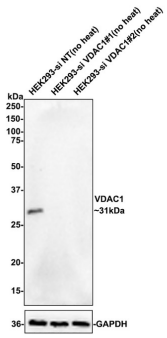

Fig3: Western blot analysis of VDAC1 on different lysates with Rabbit anti-VDAC1 antibody (R1307-1) at 1/1,000 dilution.

Lane 1: HEK293-si NT cell lysate
Lane 2: HEK293-si VDAC1#1(no heat) cell lysate
Lane 3: HEK293-si VDAC1#2(no heat) cell lysate

Lysates/proteins at 10 µg/Lane.

Predicted band size: 31 kDa
Observed band size: 31 kDa

Exposure time: 2 minutes;

4-20% SDS-PAGE gel.

R1307-1 was shown to specifically react with VDAC1 in HEK293-si NT cells. No band were observed when HEK293-si VDAC1 samples were tested. HEK293-si NT and HEK293-si VDAC1 samples were subjected to SDS-PAGE. Proteins were transferred to a PVDF membrane and blocked with 5% NFDM in TBST for 1 hour at room temperature. The primary antibody (R1307-1, 1/1,000) and Loading control antibody (Rabbit anti-GAPDH, ET1601-4, 1/10,000) were used in 5% BSA at 4℃ overnight. Goat Anti-rabbit IgG-HRP Secondary Antibody (HA1001) at 1:100,000 dilution was used for 1 hour at room temperature.

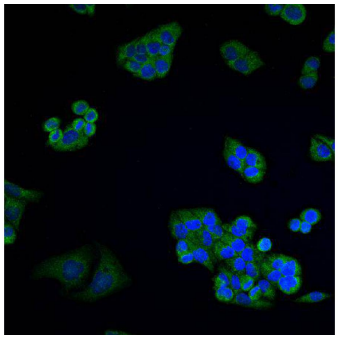

Fig4: ICC staining VDAC1 in Hela cells (green). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS and counterstained with DAPI in order to highlight the nucleus (blue).

Background References

1. "Influenza virus PB1-F2 protein induces cell death through mitochondrial ANT3 and VDAC1."Zamarin D., Garcia-Sastre A., Xiao X., Wang R., Palese P. PLoS Pathog. 1:40-54(2005)
2. "Solution structure of the integral human membrane protein VDAC-1 in detergent micelles." Hiller S., Garces R.G., Malia T.J., Orekhov V.Y., Colombini M., Wagner G. Science 321:1206-1210(2008)