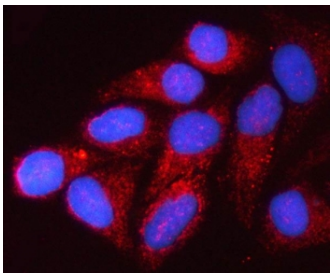
VDAC1 Antibody (R30873)

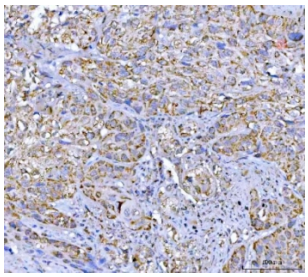
Catalog No.	Formulation	Size
R30873	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

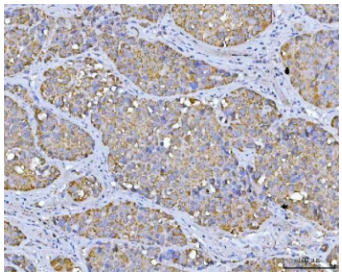
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P21796
Localization	Cytoplasm, cell membrane
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml Immunofluorescence: 5ug/ml Flow cytometry: 1-3ug/million cells
Limitations	This VDAC1 antibody is available for research use only.



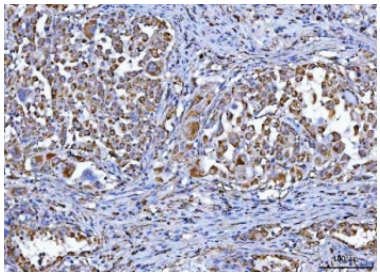
Immunofluorescent staining of FFPE human HeLa cells with VDAC1 antibody (red) and DAPI nuclear stain (blue). HIER: steam section in pH6 citrate buffer for 20 min.



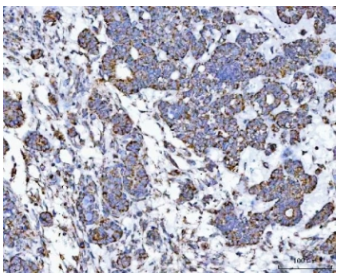
IHC staining of FFPE human urothelial carcinoma tissue with VDAC1 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



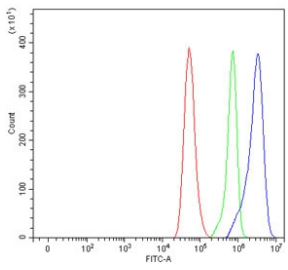
IHC staining of FFPE human liver cancer tissue with VDAC1 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



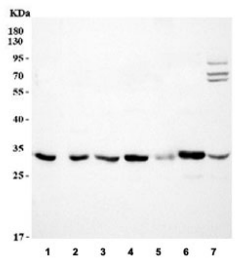
IHC staining of FFPE human lung cancer tissue with VDAC1 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



IHC staining of FFPE human ovarian cancer tissue with VDAC1 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Flow cytometry testing of human HeLa cells with VDAC1 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= VDAC1 antibody.



Western blot testing of 1) human HeLa, 2) human A431, 3) human 293T, 4) rat brain, 5) rat NRK, 6) mouse brain and 7) mouse NIH 3T3 cell lysate. Expected molecular weight: ~31 kDa.

Description

The voltage-dependent anion channel of the outer mitochondrial membrane is a small, abundant outer membrane pore-forming protein found in the outer membranes of all eukaryotic mitochondria. The protein is though to form the major pathway for movement of adenine nucleotides through the outer membrane and to be the mitochondrial binding site for hexokinase and glycerol kinase. At low transmembrane voltage, VDAC1 is open for anions such as phosphate, chloride, and adenine nucleotides. At higher transmembrane voltage, VDAC1 functions as a selective channel for cations and uncharged molecules. These features make it likely the protein plays a role in mitochondrial energy metabolism. Huizing et al. studied by Northern and Western blot analyses the human tissue distribution of mitochondrial transmembrane metabolite carriers. VDAC1 mRNA has a ubiquitous distribution, with most pronounced expression in heart, liver, and skeletal muscle, whereas the VDAC2 isoform appears to be expressed only in the heart.

Application Notes

The stated application concentrations are suggested starting amounts. Titration of the VDAC1 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

An amino acid sequence from the middle region of human Voltage-dependent anion channel 1 (RVTQSNFAVGYKTDEF) was used as the immunogen for this VDAC1 antibody (100% homologous in human, mouse and rat).

Storage

After reconstitution, the VDAC1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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