

## VDAC1 Mitochondrial Loading Control Antibody (5D173)

### Product Details

Ig Type:	IgG
Reactivity:	Human,Mouse,Rat
Molecular Weight:	Theoretical: 32 kDa. Actual: 32 kDa.
Clone:	5D173
Purification:	Protein A purified

### Applications

#### Verified Activity:

1. Paraformaldehyde-fixed, paraffin embedded (rat skeletal muscle); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (VDAC1) Monoclonal Antibody, Unconjugated (TMAB-01943) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Rabbit) instructions and DAB staining.
2. Paraformaldehyde-fixed, paraffin embedded (mouse skeletal muscle); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (VDAC1) Monoclonal Antibody, Unconjugated (TMAB-01943) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Rabbit) instructions and DAB staining.
3. Paraformaldehyde-fixed, paraffin embedded Mouse Cerebrum; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with VDAC1 Monoclonal Antibody, Unconjugated (TMAB-01943) at 1:200 overnight at 4°C, followed by conjugation to the secondary antibody and DAB staining.
4. Paraformaldehyde-fixed, paraffin embedded Rat Cerebrum; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with VDAC1 Monoclonal Antibody, Unconjugated (TMAB-01943) at 1:200 overnight at 4°C, followed by conjugation to the secondary antibody and DAB staining.
5. Paraformaldehyde-fixed, paraffin embedded Human Cerebrum; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with VDAC1 Monoclonal Antibody, Unconjugated (TMAB-01943) at 1:200 overnight at 4°C, followed by conjugation to the secondary antibody and DAB staining.
6. Paraformaldehyde-fixed, paraffin embedded Mouse Kidney; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with VDAC1 Monoclonal Antibody, Unconjugated (TMAB-01943) at 1:200 overnight at 4°C, followed by conjugation to the secondary antibody and DAB staining.
7. Paraformaldehyde-fixed, paraffin embedded Rat Kidney; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with VDAC1 Monoclonal Antibody, Unconjugated (TMAB-01943) at 1:200 overnight at 4°C, followed by conjugation to the secondary antibody and DAB staining.
8. Paraformaldehyde-fixed, paraffin embedded Human Kidney; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with VDAC1 Monoclonal Antibody, Unconjugated (TMAB-01943) at 1:200 overnight at 4°C, followed by conjugation to the secondary antibody and DAB staining.

9. Paraformaldehyde-fixed, paraffin embedded Mouse Heart; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with VDAC1 Monoclonal Antibody, Unconjugated (TMAB-01943) at 1:200 overnight at 4°C, followed by conjugation to the secondary antibody and DAB staining.

10. Paraformaldehyde-fixed, paraffin embedded Rat Heart; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with VDAC1 Monoclonal Antibody, Unconjugated (TMAB-01943) at 1:200 overnight at 4°C, followed by conjugation to the secondary antibody and DAB staining.

11. Paraformaldehyde-fixed, paraffin embedded Rat Liver; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with VDAC1 Monoclonal Antibody, Unconjugated (TMAB-01943) at 1:200 overnight at 4°C, followed by conjugation to the secondary antibody and DAB staining.

12. Paraformaldehyde-fixed, paraffin embedded Human Liver; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with VDAC1 Monoclonal Antibody, Unconjugated (TMAB-01943) at 1:200 overnight at 4°C, followed by conjugation to the secondary antibody and DAB staining.

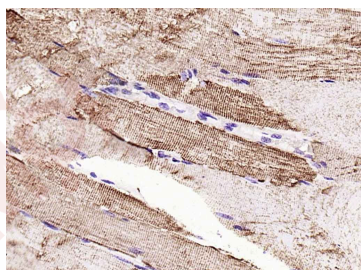
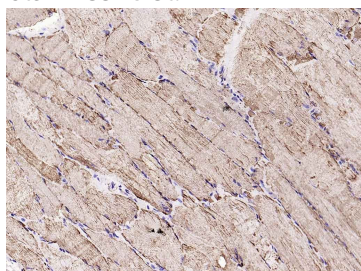
13. Paraformaldehyde-fixed, paraffin embedded Human Colon Cancer; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with VDAC1 Monoclonal Antibody, Unconjugated (TMAB-01943) at 1:200 overnight at 4°C, followed by conjugation to the secondary antibody and DAB staining.

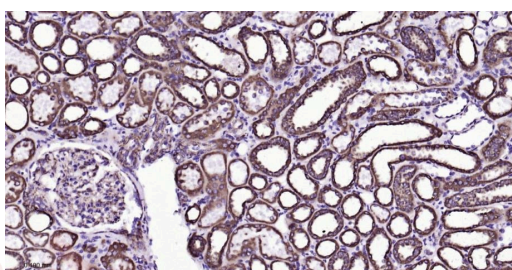
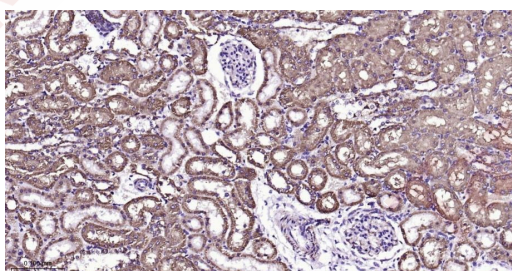
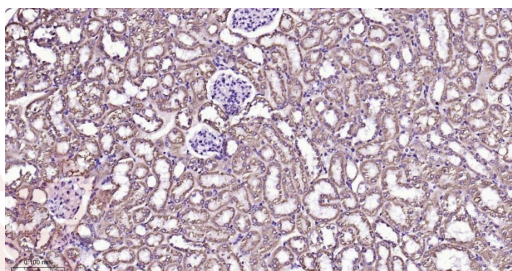
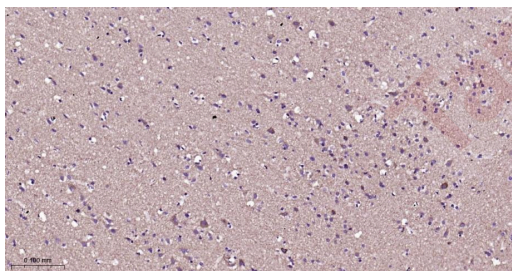
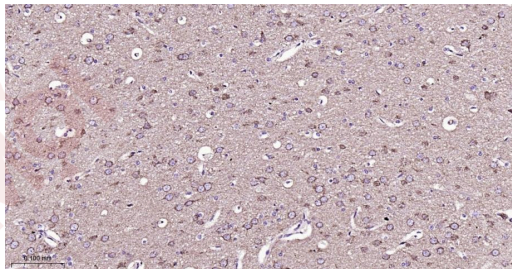
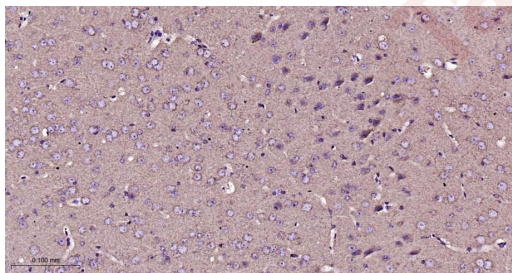
14. Paraformaldehyde-fixed, paraffin embedded Human Breast Cancer; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with VDAC1 Monoclonal Antibody, Unconjugated (TMAB-01943) at 1:200 overnight at 4°C, followed by conjugation to the secondary antibody and DAB staining.

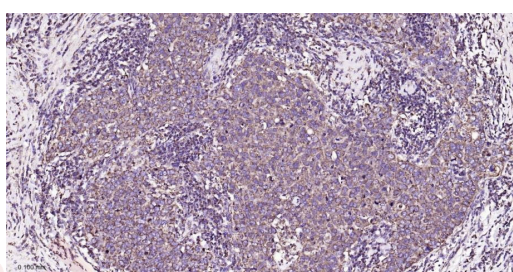
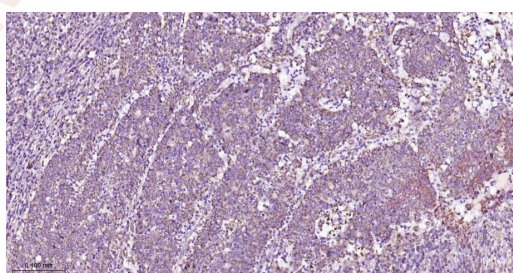
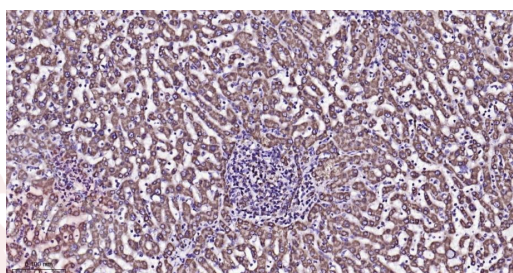
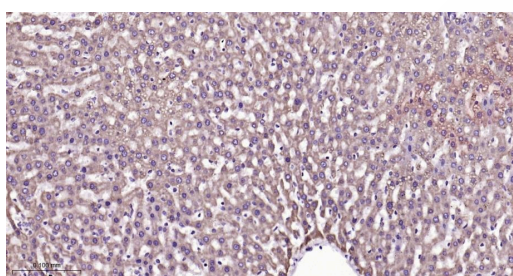
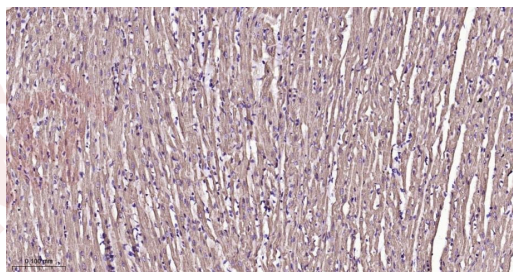
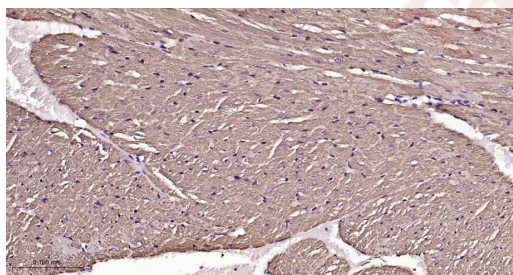
15. Paraformaldehyde-fixed, paraffin embedded Human Skeletal muscle; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with VDAC1 Monoclonal Antibody, Unconjugated (TMAB-01943) at 1:200 overnight at 4°C, followed by conjugation to the secondary antibody and DAB staining.

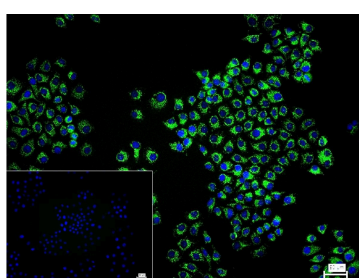
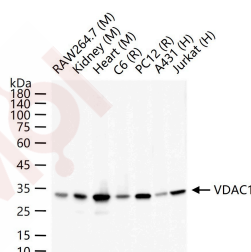
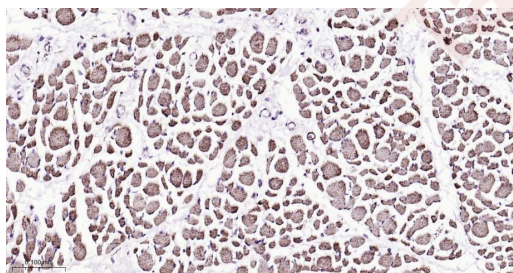
16. 25 µg total protein per Lane of various lysates probed with VDAC1 monoclonal antibody, unconjugated (TMAB-01943) at 1:1000 dilution and 4°C overnight incubation. Followed by conjugated secondary antibody incubation at RT for 60 min.

17. 4% Paraformaldehyde-fixed HepG2 (H) cell; Triton X-100 at RT for 20 min; Antibody incubation with (VDAC1) monoclonal Antibody, unconjugated (TMAB-01943) 1:100, 90 min at 37°C; followed by conjugated Goat Anti-Rabbit IgG antibody (green ) at 37°C for 90 min, DAPI (blue) was used to stain the cell nucleus. PBS instead of the primary antibody was used as the blank control.









Application: ICC/IF,IF,IHC-Fr,IHC-P,WB

Recommended ICC/IF=1:50-200; IF=1:100-500; IHC-Fr=1:100-500; IHC-P=1:100-500; WB=1:500-5000

### Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

### Antigen Details

Immunogen: A synthesized peptide: human VDAC1

Antigen Species: Human

Gene ID: 7416

Synonyms: VDAC-1;Voltage dependent anion channel 1;hVDAC1;Plasmalemmal porin;Porin 31HL;Outer mitochondrial membrane protein porin 1;Voltage dependent anion selective channel protein 1; POR1;VDAC;OMP2;Voltage-dependent anion-selective channel protein 1;MGC111064;Porin 31HM;Mitochondrial Porin;YNL055C;YNL2441C;N2441

Biology Area: Cellular metabolic process, Metabolism, Mitochondrial, Mitochondrial, VDAC1 - Mitochondrial Preps, Energy Metabolism, Apoptosis, Mitochondrial markers, Cancer, Energy Metabolism, Mitochondrial, Channels, Mitochondria

### Research Background

Voltage dependent anion selective channel protein 1 (VDAC/Porin) belongs to the eukaryotic mitochondrial porin family and forms a channel through the mitochondrial outer membrane and also the plasma membrane. The channel allows diffusion of small hydrophilic molecules; it adopts an open conformation at low or zero membrane potential and a closed conformation at potentials above 30-40 mV. The open state has a weak anion selectivity whereas the closed state is cation selective. VDAC/Porin expression is observed in the heart, liver and skeletal muscle.

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Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481