### BACKGROUND

Adenine nucleotide translocator (ANT) and the voltage-dependent anion-selective channel proteins 1 and 2 (VDAC1 and VDAC2) are components of the permeability transition pore complex (PTPC) of the mitochondrial inner and outer membranes, respectively. Formation of PTPCs, the subsequent dissipation of mitochondrial inner membrane potential and release of cytochrome c through the outer mitochondrial membrane are critical events in the early stages of apoptosis. Bax, a proapoptotic protein, has been shown to act upon ANT to induce the dissipation of mitochondrial inner membrane potential.

### CHROMOSOMAL LOCATION

Genetic locus: VDAC1 (human) mapping to 5q31.1; Vdac1 (mouse) mapping to 11 B1.3.

### SOURCE

VDAC1 (B-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 118-157 within an internal region of VDAC1 of human origin.

### PRODUCT

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

VDAC1 (B-6) is available conjugated to agarose (sc-390996 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390996 HRP), 200 µg/ml, for WB, IHCP and ELISA; and to either phycoerythrin (sc-390996 PE), fluorescein (sc-390996 FITC), Alexa Fluor® 488 (sc-390996 AF488) or Alexa Fluor® 647 (sc-390996 AF647), 200 µg/ml, for IF, IHCP and FCM.

Blocking peptide available for competition studies, sc-390996 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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### APPLICATIONS

VDAC1 (B-6) is recommended for detection of VDAC1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:300).

VDAC1 (B-6) is also recommended for detection of VDAC1 in additional species, including avian.

Suitable for use as control antibody for VDAC1 siRNA (h): sc-42355, VDAC1 siRNA (m): sc-42356, VDAC1 shRNA Plasmid (h): sc-42355-SH, VDAC1 shRNA Plasmid (m): sc-42356-SH, VDAC1 shRNA (h) Lentiviral Particles: sc-42355-V and VDAC1 shRNA (m) Lentiviral Particles: sc-42356-V.

Molecular Weight of VDAC1: 30-35 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, Jurkat whole cell lysate: sc-2204 or A-431 whole cell lysate: sc-2201.

### STORAGE

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

### DATA

VDAC1 (B-6): sc-390996. Western blot analysis of VDAC1 expression in HL-60 (A), Jurkat (B), HeLa (C) and A-431 (D) whole cell lysates and rat heart (E) and human heart (F) tissue extracts.

VDAC1 (B-6): sc-390996. Immunoperoxidase staining of formalin fixed, paraffin-embedded human duodenum tissue showing cytoplasmic and membrane staining of glandular cells (A) and human skeletal muscle tissue showing cytoplasmic staining of myocytes (B).

### SELECT PRODUCT CITATIONS


### RESEARCH USE

For research use only, not for use in diagnostic procedures.