

VDAC1/2/3 (FL-283): sc-98708

BACKGROUND

Adenine nucleotide translocator (ANT) and the voltage-dependent anion-selective channel proteins 1, 2 and 3 (VDAC1, VDAC2 and VDAC3) are components of the permeability transition pore complex (PTPC) of the mitochondrial inner or outer membranes. 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.

SOURCE

VDAC1/2/3 (FL-283) is a rabbit polyclonal antibody raised against amino acids 1-283 representing full length VDAC3 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

VDAC1/2/3 (FL-283) is recommended for detection of VDAC1, VDAC2 and VDAC3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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 1:30-1:3000).

VDAC1/2/3 (FL-283) is also recommended for detection of VDAC1, VDAC2, VDAC3 in additional species, including equine, canine, bovine and porcine.

Molecular Weight of VDAC1: 30-35 kDa.

Molecular Weight of VDAC2: 30-32 kDa.

Molecular Weight of VDAC3: 31 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209.

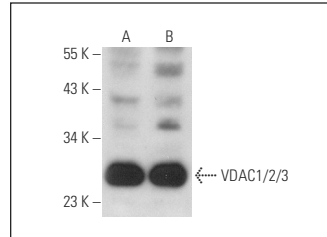
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

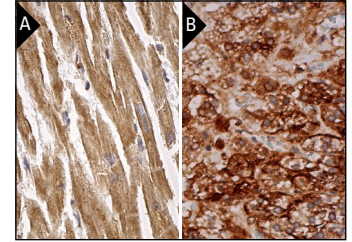
STORAGE

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

DATA



VDAC1/2/3 (FL-283): sc-98708. Western blot analysis of VDAC1/2/3 expression in HL-60 (A) and Jurkat (B) whole cell lysates.



VDAC1/2/3 (FL-283): sc-98708. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic staining of myocytes (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human adrenal gland tissue showing cytoplasmic and membrane staining of glandular cells (B).

SELECT PRODUCT CITATIONS

- Tchakarska, G., et al. 2011. Cyclin D1 inhibits mitochondrial activity in B cells. *Cancer Res.* 71: 1690-1699.
- Bouyer, G., et al. 2011. Erythrocyte peripheral type benzodiazepine receptor/voltage-dependent anion channels are upregulated by *Plasmodium falciparum*. *Blood* 118: 2305-2312.
- Gao, F., et al. 2013. The *Euphorbia lunulata* Bge extract inhibits proliferation of human hepatoma HepG2 cells and induces apoptosis. *J. BUON* 18: 491-495.
- Plötz, M., et al. 2012. Disruption of the VDAC2-Bak interaction by Bcl-x₂ mediates efficient induction of apoptosis in melanoma cells. *Cell Death Differ.* 19: 1928-1938.
- Quast, S.A., et al. 2013. ROS-dependent phosphorylation of Bax by wortmannin sensitizes melanoma cells for TRAIL-induced apoptosis. *Cell Death Dis.* 4: e839.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **VDAC1 (B-6): sc-390996**, our highly recommended monoclonal alternative to VDAC1/2/3 (FL-283). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **VDAC1 (B-6): sc-390996**.