

VDAC1 (h2): 293T Lysate: sc-171785

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.

REFERENCES

1. Cozens, A.L., Runswick, M.J. and Walker, J.E. 1989. DNA sequences of two expressed nuclear genes for human mitochondrial ADP/ATP translocase. *J. Mol. Biol.* 206: 261-280.
2. Li, K., Warner, C.K., Hodge, J.A., Minoshima, S., Kudoh, J., Fukuyama, R., Maekawa, M., Shimizu, Y., Shimizu, N. and Wallace, D.C. 1989. A human muscle adenine nucleotide translocator gene has four exons, is located on chromosome 4, and is differentially expressed. *J. Biol. Chem.* 264: 13998-14004.
3. Blachly-Dyson, E., Zambronicz, E.B., Yu, W.H., Adams, V., McCabe, E.R., Adelman, J., Colombini, M. and Forte, M. 1993. Cloning and functional expression in yeast of two human isoforms of the outer mitochondrial membrane channel, the voltage-dependent anion channel. *J. Biol. Chem.* 268: 1835-1841.
4. Zamzami, N., Susin, S.A., Marchetti, P., Hirsch, T., Gomez-Monterrey, I., Castedo, M. and Kroemer, G. 1996. Mitochondrial control of nuclear apoptosis. *J. Exp. Med.* 183: 1533-1544.
5. Green, D.R. and Reed, J.C. 1998. Mitochondria and apoptosis. *Science* 281: 1309-1312.
6. Marzo, I., Brenner, C., Zamzami, N., Jurgens-meier, J.M., Susin, S.A., Viera, H.L.A., Prevost, M.C., Xie, Z., Matsuyama, S., Reed J.C. and Kroemer, G. 1998. Bax and adenine nucleotide translocator cooperate in the mitochondrial control of apoptosis. *Science* 281: 2027-2031.

CHROMOSOMAL LOCATION

Genetic locus: VDAC1 (human) mapping to 5q31.1.

PRODUCT

VDAC1 (h2): 293T Lysate represents a lysate of human VDAC1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

VDAC1 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive VDAC1 antibodies.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

RESEARCH USE

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