



AIF (m): 293T Lysate: sc-118296

BACKGROUND

A key event in the apoptotic process is the opening of the mitochondrial permeability transition pore, an event that is regulated by Bcl-2 family proteins, resulting in the release of several proteins from the mitochondrial intermembrane space. Several of these proteins participate in apoptosis, including cytochrome c, procaspases 2, 3 and 9, and AIF (apoptosis-inducing factor). AIF has been shown to cause DNA fragmentation and chromatin condensation and to induce the release of cytochrome c and caspase-9 from mitochondria. Bcl-2 overexpression has been shown to prevent the release of AIF from mitochondria, but not to block its apoptogenic activity.

REFERENCES

1. Zamzami, N., et al. 1996. Mitochondrial control of nuclear apoptosis. *J. Exp. Med.* 183: 1533-1544.
2. Susin, S.A., et al. 1996. Bcl-2 inhibits the mitochondrial release of an apoptogenic protease. *J. Exp. Med.* 184: 1331-1341.
3. Kluck, R.M., et al. 1997. The release of cytochrome c from mitochondria: a primary site for Bcl-2 regulation of apoptosis. *Science* 275: 1132-1136.
4. Green, D.R., et al. 1998. Mitochondria and apoptosis. *Science* 281: 1309-1312.
5. Mancini, M., et al. 1998. The caspase-3 precursor has a cytosolic and mitochondrial distribution: implications for apoptotic signaling. *J. Cell Biol.* 140: 1485-1495.
6. Susin, S.A., et al. 1999. Mitochondrial release of caspase-2 and -9 during the apoptotic process. *J. Exp. Med.* 189: 381-394.
7. Susin, S.A., et al. 1999. Molecular characterization of mitochondrial apoptosis-inducing factor. *Nature* 397: 441-446.
8. Kuwana, T., et al. 2003. Bcl-2-family proteins and the role of mitochondria in apoptosis. *Curr. Opin. Cell Biol.* 15: 691-699.
9. Kook, S.H., et al. 2007. Caspase-independent death of human osteosarcoma cells by flavonoids is driven by p53-mediated mitochondrial stress and nuclear translocation of AIF and endonuclease G. *Apoptosis* 12: 1289-1298.

CHROMOSOMAL LOCATION

Genetic locus: Pdcd8 (mouse) mapping to X A6.

PRODUCT

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

APPLICATIONS

AIF (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive AIF antibodies. Recommended use: 10-20 µl per lane.

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.

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.