

AVEN (3L3): sc-134275

BACKGROUND

AVEN, a cell death regulator, is an important signal inducer in acute leukemias. AVEN is a highly conserved peripheral membrane protein that protects the cell against the proteolytic activation of caspases as well as Apaf-1 mediated apoptosis by interfering with the ability of Apaf to self-associate. Bcl-2 and Bad also interact with AVEN to prevent apoptosis. AVEN is highly expressed in ovary, heart, thymus, spleen, testis and colon, but can also be detected in other tissues. Erythropoietin and methylprednisolone may play important roles in the expression of AVEN in cardiac tissue, especially after a traumatic brain injury. In young patients suffering from acute lymphoblastic leukemia (ALL), AVEN expression may be a useful tool in prognosis prediction.

REFERENCES

1. Chau, B.N., et al. 2000. AVEN, a novel inhibitor of caspase activation, binds Bcl-x_L and Apaf-1. *Mol. Cell* 6: 31-40.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 605265. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Ina, S., et al. 2003. Expression of the mouse AVEN gene during spermatogenesis, analyzed by subtraction screening using Mvh-knockout mice. *Gene Expr. Patterns* 3: 635-638.
4. Paydas, S., et al. 2003. Survivin and AVEN: two distinct antiapoptotic signals in acute leukemias. *Ann. Oncol.* 14: 1045-1050.
5. Figueroa, B., et al. 2004. AVEN to various culture conditions. *Biotechnol. Bioeng.* 85: 589-600.
6. Kerl, H., et al. 2004. International board certification in dermatopathology: paving the way for the future. *Am. J. Dermatopathol.* 26: 439-440.
7. Choi, J., et al. 2006. AVEN overexpression: association with poor prognosis in childhood acute lymphoblastic leukemia. *Leuk. Res.* 30: 1019-1025.
8. Ozisik, K., et al. 2006. Expression of antiapoptotic survivin and AVEN genes in rat heart tissue after traumatic brain injury. *Transplant. Proc.* 38: 2784-2787.
9. Sauerwald, T.M., et al. 2006. Combining caspase and mitochondrial dysfunction inhibitors of apoptosis to limit cell death in mammalian cell cultures. *Biotechnol. Bioeng.* 94: 362-372.

CHROMOSOMAL LOCATION

Genetic locus: AVEN (human) mapping to 15q14; Aven (mouse) mapping to 2 E3.

SOURCE

AVEN (3L3) is a mouse monoclonal antibody raised against recombinant AVEN protein of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

AVEN (3L3) is recommended for detection of AVEN 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for AVEN siRNA (h): sc-60233, AVEN siRNA (m): sc-60234, AVEN shRNA Plasmid (h): sc-60233-SH, AVEN shRNA Plasmid (m): sc-60234-SH, AVEN shRNA (h) Lentiviral Particles: sc-60233-V and AVEN shRNA (m) Lentiviral Particles: sc-60234-V.

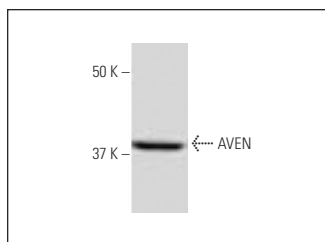
Molecular Weight of AVEN: 39 kDa.

Positive Controls: Ramos cell lysate: sc-2216 or Jurkat whole cell lysate: sc-2204.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



AVEN (3L3): sc-134275. Western blot analysis of AVEN expression in Jurkat whole cell lysate.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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