SANTA CRUZ BIOTECHNOLOGY, INC.

A1 (FL-175): sc-8351

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Bcl-2 family of proteins is characterized by its ability to modulate cell death under a broad range of physiological conditions. Bcl-2 and Bcl-x_L function to inhibit apoptosis while other members of the Bcl-2 family, Bax, Bad, Bak and Bcl-x_S, oppose death-suppressing effects. An additional member of the family, A1 (also designated Bfl-1), dimerizes with both Bcl-2 and Bax and has been identified as a hematopoietic-specific, early inducible gene. While A1 demonstrates life promoting properties similar to those of Bcl-2, its function may be more temporally regulated during myeloid differentiation and dependent on additional growth stimuli to confer its life promoting properties. A1 is abundantly expressed in bone marrow and at low levels in other tissues. There is evidence that a correlation exists between a high expression of the A1 gene product and stomach cancer.

REFERENCES

1. Korsmeyer, S.J., et al. 1993. Bcl-2/Bax: a rheostat that regulates an antioxidant pathway and cell death. Semin. Cancer Biol. 4: 327-332.
2. Craig, R.W. 1995. The Bcl-2 gene family. Semin. Cancer Biol. 6: 35-43.

CHROMOSOMAL LOCATION

Genetic locus: BCL2A1 (human) mapping to 15q25.1; Bcl2a1a (mouse) mapping to 9 E3.1.

SOURCE

A1 (FL-175) is a rabbit polyclonal antibody raised against amino acids 1-175 representing full length A1 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

A1 (FL-175) is recommended for detection of A1 of human, and, to a lesser extent mouse and rat 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).

A1 (FL-175) is also recommended for detection of A1 in additional species, including equine and porcine.

Suitable for use as control antibody for A1 siRNA (h): sc-37285, A1 siRNA (m): sc-37286, A1 shRNA Plasmid (h): sc-37285-SH, A1 shRNA Plasmid (m): sc-37286-SH, A1 shRNA (h) Lentiviral Particles: sc-37285-V and A1 shRNA (m) Lentiviral Particles: sc-37286-V.

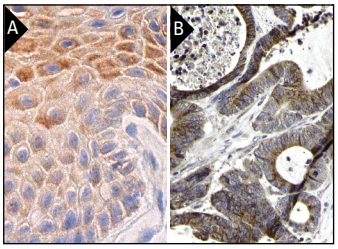
Molecular Weight of A1: 20 kDa.

Positve Controls: HeLa whole cell lysate: sc-2200.

STORAGE

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

DATA



A1 (FL-175): sc-8351. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cervix tissue showing cytoplasmic staining of squamous epithelial cells **(A)**. Immunoperoxidase staining of formalin fixed, paraffin-embedded human colo-rectal cancer tissue showing cytoplasmic staining of tumor cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program **(B)**.

SELECT PRODUCT CITATIONS

1. Werner, A.B., et al. 2002. Bcl-2 family member Bfl-1/A1 sequesters truncated bid to inhibit is collaboration with pro-apoptotic Bak or Bax. J. Biol. Chem. 277: 22781-22788.
2. Takada, Y., et al. 2005. Evodiamine abolishes constitutive and inducible NFκB activation by inhibiting IκBα kinase activation, thereby suppressing NFκB-regulated antiapoptotic and metastatic gene expression, up-regulating apoptosis, and inhibiting invasion. J. Biol. Chem. 280: 17203-17212.
3. Kubota, Y. and Kinoshita, K. 2007. Mcl-1 depletion in apoptosis elicited by ionizing radiation in peritoneal resident macrophages of C3H mice. J. Immunol. 178: 2923-2931.
4. Shishodia, S., et al. 2007. Guggulsterone inhibits tumor cell proliferation, induces S-phase arrest, and promotes apoptosis through activation of c-Jun N-terminal kinase, suppression of Akt pathway, and downregulation of antiapoptotic gene products. Biochem. Pharmacol. 74: 118-130.
5. Lo, S.Z., et al. 2011. TNF-α renders macrophages resistant to a range of cancer chemotherapeutic agents through NFκB-mediated antagonism of apoptosis signalling. Cancer Lett. 307: 80-92.

RESEARCH USE

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