SANTA CRUZ BIOTECHNOLOGY, INC.

A1 (B-3): sc-166943

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.

CHROMOSOMAL LOCATION

Genetic locus: BCL2A1 (human) mapping to 15q25.1.

SOURCE

A1 (B-3) is a mouse monoclonal antibody raised against amino acids 1-175 representing full length A1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

A1 (B-3) is available conjugated to agarose (sc-166943 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166943 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166943 PE), fluorescein (sc-166943 FITC), Alexa Fluor® 488 (sc-166943 AF488), Alexa Fluor® 546 (sc-166943 AF546), Alexa Fluor® 594 (sc-166943 AF594) or Alexa Fluor® 647 (sc-166943 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166943 AF680) or Alexa Fluor® 790 (sc-166943 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

A1 (B-3) is recommended for detection of A1 of human origin by Western Blotting (starting dilution 1:100, 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).

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

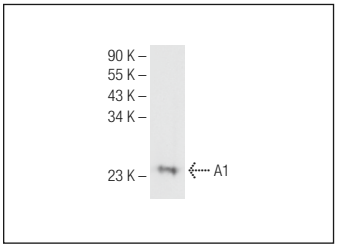
Molecular Weight of A1: 20 kDa.

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

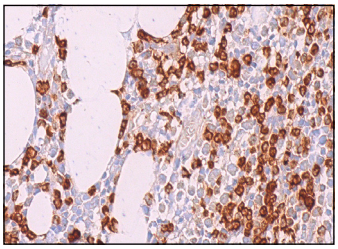
RECOMMENDED SUPPORT REAGENTS

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). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



A1 (B-3): sc-166943. Western blot analysis of A1 expression in HeLa whole cell lysate.



A1 (B-3): sc-166943. Immunoperoxidase staining of formalin fixed, paraffin-embedded human bone marrow tissue showing cytoplasmic staining of subset of hematopoietic cells.

SELECT PRODUCT CITATIONS

1. Jain, R., et al. 2015. Dimethylaminoethyl methacrylate copolymer-siRNA nanoparticles for silencing a therapeutically relevant gene in macrophages. Med. Chem. Commun. 6: 691-701.
2. Dandekar, P., et al. 2015. Enhanced uptake and siRNA-mediated knockdown of a biologically relevant gene using cyclodextrin polyrotaxane. J. Mater. Chem. B 3: 2590-2598.
3. Kari, A., et al. 2022. Knockdown of EPSTI1 alleviates lipopolysaccharide-induced inflammatory injury through regulation of NFκB signaling in a cellular pneumonia model. Allergol. Immunopathol. 50: 106-112.

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.