SANTA CRUZ BIOTECHNOLOGY, INC.

BANK1 (F-8): sc-393611

BACKGROUND

BANK1 (B-cell scaffold protein with ankyrin repeats) is a 785 amino acid protein that contains one DBB domain and two ANK (ankyrin) repeats. Expressed in a variety of B-cells with particularly high expression in CD19+ B-cells, BANK1 interacts with Lyn, IP3R-I and IP3R-II and is involved in B-cell receptor-induced calcium mobilization from intracellular calcium stores. Via its association with Lyn, BANK1 promotes Lyn-mediated tyrosine phosphorylation of IP3R-I and IP3R-II, an event that activates B-cells and may be required for antigen-induced immune responses within the body. Defects in the gene encoding BANK1 increase the genetic susceptibility to systemic lupus erythematosus (SLE), a chronic inflammatory disorder that affects joints, skin, serosal membranes and kidney tissue. BANK1 exists as four isoforms that are produced by alternative splicing events.

CHROMOSOMAL LOCATION

Genetic locus: BANK1 (human) mapping to 4q24; Bank1 (mouse) mapping to 3 G3.

SOURCE

BANK1 (F-8) is a mouse monoclonal antibody raised against amino acids 576-785 mapping at the C-terminus of BANK1 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.

BANK1 (F-8) is available conjugated to agarose (sc-393611 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-393611 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393611 PE), fluorescein (sc-393611 FITC), Alexa Fluor® 488 (sc-393611 AF488), Alexa Fluor® 546 (sc-393611 AF546), Alexa Fluor® 594 (sc-393611 AF594) or Alexa Fluor® 647 (sc-393611 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393611 AF680) or Alexa Fluor® 790 (sc-393611 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

BANK1 (F-8) is recommended for detection of BANK1 isoforms 1-4 of mouse, rat and 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 BANK1 siRNA (h): sc-89307, BANK1 siRNA (m): sc-141468, BANK1 shRNA Plasmid (h): sc-89307-SH, BANK1 shRNA Plasmid (m): sc-141468-SH, BANK1 shRNA (h) Lentiviral Particles: sc-89307-V and BANK1 shRNA (m) Lentiviral Particles: sc-141468-V.

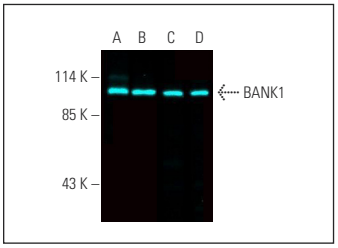
Molecular Weight of BANK1: 89 kDa.

Positive Controls: A549 cell lysate: sc-2413, HEL 92.1.7 cell lysate: sc-2270 or GA-10 whole cell lysate: sc-364230.

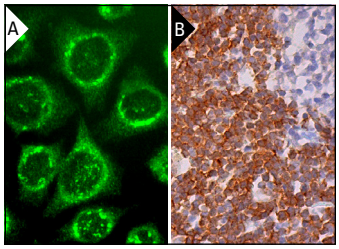
RECOMMENDED SUPPORT REAGENTS

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



BANK1 (F-8) Alexa Fluor® 647: sc-393611 AF647. Direct fluorescent western blot analysis of BANK1 expression in GA-10 (**A**), HEL 92.1.7 (**B**), A549 (**C**) and THP-1 (**D**) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214.



BANK1 (F-8): sc-393611. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human lymph node tissue showing cytoplasmic and membrane staining of cells in non-germinal center (**B**).

SELECT PRODUCT CITATIONS

1. Georg, I., et al. 2020. BANK1 interacts with TRAF6 and MyD88 in innate immune signaling in B cells. Cell. Mol. Immunol. 17: 954-965.

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.