

BANK1 (Q-14): sc-133358

BACKGROUND

BANK1 (B-cell scaffold protein with ankyrin repeats) is a 785 amino acid protein that contains one DBB domain and 2 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.

REFERENCES

1. Yokoyama, K., et al. 2002. BANK regulates BCR-induced calcium mobilization by promoting tyrosine phosphorylation of IP(3) receptor. *EMBO J.* 21: 83-92.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 610292. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Aiba, Y., et al. 2006. BANK negatively regulates Akt activation and subsequent B cell responses. *Immunity* 24: 259-268.
4. Kozyrev, S.V., et al. 2008. Functional variants in the B-cell gene BANK1 are associated with systemic lupus erythematosus. *Nat. Genet.* 40: 211-216.
5. Kozyrev, S.V., et al. 2008. Corrigendum: Functional variants in the B-cell gene BANK1 are associated with systemic lupus erythematosus. *Nat. Genet.* 40: 484.

CHROMOSOMAL LOCATION

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

SOURCE

BANK1 (Q-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of BANK1 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-133358 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

BANK1 (Q-14) is recommended for detection of BANK1 isoforms 1-4 of mouse and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) 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 predicted of BANK1: 89 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, PC-3 cell lysate: sc-2220 or mouse lymph node extract: sc-364243.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

PROTOCOLS

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



Try **BANK1 (F-8): sc-393611**, our highly recommended monoclonal alternative to BANK1 (Q-14).