SANTA CRUZ BIOTECHNOLOGY, INC.

YANK2 (4A7): sc-517186

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The phosphorylation and dephosphorylation of proteins on serine and threonine residues is an essential means of regulating a broad range of cellular functions in eukaryotes, including cell division, homeostasis and apoptosis. A group of proteins that are intimately involved in this process are the serine/threonine (Ser/Thr) protein kinases. YANK2, also known as STK32B (serine/threonine kinase 32B) or STKG6, is a 414 amino acid protein that contains one protein kinase domain and belongs to the Ser/Thr protein kinase family. Using magnesium as a cofactor, YANK2 functions to catalyze the ATP-dependent phosphorylation of target proteins and may play a role in various signaling events throughout the cell. Multiple isoforms of YANK2 exist due to alternatively splicing events.

REFERENCES

1. Bairoch, A. and Claverie, J.M. 1988. Sequence patterns in protein kinases. Nature 331: 22.
2. Hanks, S.K., et al. 1988. The protein kinase family: conserved features and deduced phylogeny of the catalytic domains. Science 241: 42-52.
3. Hanks, S.K. and Quinn, A.M. 1991. Protein kinase catalytic domain sequence database: identification of conserved features of primary structure and classification of family members. Methods Enzymol. 200: 38-62.
4. Ruiz-Perez, V.L., et al. 2000. Mutations in a new gene in Ellis-van Creveld syndrome and Weyers acrodental dysostosis. Nat. Genet. 24: 283-286.
5. Manning, G., et al. 2002. The protein kinase complement of the human genome. Science 298: 1912-1934.
6. Temtamy, S.A., et al. 2008. Long interspersed nuclear element-1 (LINE1)-mediated deletion of EVC, EVC2, C4orf6, and STK32B in Ellis-van Creveld syndrome with borderline intelligence. Hum. Mutat. 29: 931-938.
7. Trynka, G., et al. 2009. Coeliac disease associated risk variants in TNFAIP3 and REL implicate altered NFκB signalling. Gut 58: 1078-1083.

CHROMOSOMAL LOCATION

Genetic locus: STK32B (human) mapping to 4p16.2; Stk32b (mouse) mapping to 5 B3.

SOURCE

YANK2 (4A7) is a mouse monoclonal antibody raised against amino acids 314-414 representing partial length YANK2 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.

STORAGE

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

APPLICATIONS

YANK2 (4A7) is recommended for detection of YANK2 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)], immunofluorescence (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 YANK2 siRNA (h): sc-76940, YANK2 siRNA (m): sc-76941, YANK2 shRNA Plasmid (h): sc-76940-SH, YANK2 shRNA Plasmid (m): sc-76941-SH, YANK2 shRNA (h) Lentiviral Particles: sc-76940-V and YANK2 shRNA (m) Lentiviral Particles: sc-76941-V.

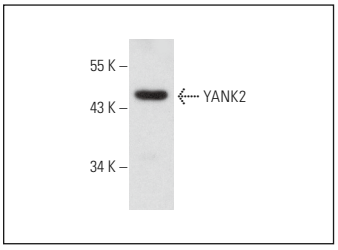
Molecular Weight of YANK2: 48 kDa.

Positive Controls: mouse brain extract: sc-2253.

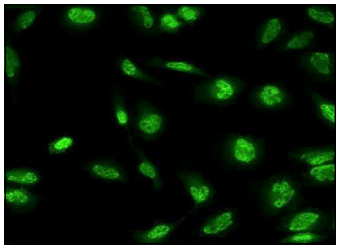
RECOMMENDED SUPPORT REAGENTS

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.

DATA



YANK2 (4A7): sc-517186. Western blot analysis of YANK2 expression in mouse brain tissue extract.



YANK2 (4A7); sc-517186. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization.

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.