SANTA CRUZ BIOTECHNOLOGY, INC.

STK32A (K-13): sc-137802

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The phosphorylation of proteins by protein kinases and protein phosphatases is a key event in most nuclear and cytoplasmic processes. The ability to activate and deactivate proteins via phosphorylation or dephosphorylation is important for cell division, cell differentiation, DNA repair and transcription. STK32A (serine/threonine kinase 32A), also known as YANK1, is a 396 amino acid protein that belongs to the superfamily of serine/threonine protein kinases and exists as 3 isoforms. The gene encoding STK32A maps to human chromosome 5, which is associated with Cockayne syndrome through the ERCC8 gene and familial adenomatous polyposis through the adenomatous polyposis coli (APC) tumor suppressor gene. Treacher Collins syndrome is also chromosome 5 associated and is caused by insertions or deletions within the TCOF1 gene. Deletion of the p arm of chromosome 5 leads to Cri du chat syndrome. Deletion of 5q or chromosome 5 altogether is common in therapy-related acute myelogenous leukemias and myelodysplastic syndrome.

REFERENCES

1. Rauch, A. and Dörr, H.G. 2007. Chromosome 5q subtelomeric deletion syndrome. Am. J. Med. Genet. C Semin. Med. Genet. 145C: 372-376.
2. Villa, N., Redaelli, S., Borroni, C., Colombo, C., Roncaglia, N., Sala, E., Crosti, F., Cappellini, A. and Dalprà, L. 2007. Fetal trisomy 5 mosaicism: case report and literature review. Am. J. Med. Genet. A 143A: 2343-2346.
3. Shadduck, R.K., Latsko, J.M., Rossetti, J.M., Haq, B. and Abdulhaq, H. 2007. Recent advances in myelodysplastic syndromes. Exp. Hematol. 35: 137-143.
4. Falini, B., Nicoletti, I., Bolli, N., Martelli, M.P., Liso, A., Gorello, P., Mandelli, F., Mecucci, C. and Martelli, M.F. 2007. Translocations and mutations involving the nucleophosmin (NPM1) gene in lymphomas and leukemias. Haematologica 92: 519-532.
5. Kristoffersen, K.E. 2008. Speech and language development in cri du chat syndrome: a critical review. Clin. Linguist. Phon. 22: 443-457.
6. Valent, P. 2008. Revealing the pathogenesis of the 5q- syndrome. Eur. J. Clin. Invest. 38: 539-540.
7. Buysse, K., Crepel, A., Menten, B., Pattyn, F., Antonacci, F., Veltman, J.A., Larsen, L.A., Tümer, Z., de Klein, A., van de Laar, I., Devriendt, K., Mortier, G. and Speleman, F. 2008. Mapping of 5q35 chromosomal rearrangements within a genomically unstable region. J. Med. Genet. 45: 672-678.
8. Azman, B.Z., Akhir, S.M., Zilfalil, B.A. and Ankathil, R. 2008. Two cases of deletion 5p syndrome: one with paternal involvement and another with atypical presentation. Singapore Med. J. 49: e98-e100.

CHROMOSOMAL LOCATION

Genetic locus: STK32A (human) mapping to 5q32; Stk32a (mouse) mapping to 18 B3.

SOURCE

STK32A (K-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of STK32A 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-137802 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

STK32A (K-13) is recommended for detection of STK32A of mouse, rat 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); non cross-reactive with STK32C.

Suitable for use as control antibody for STK32A siRNA (h): sc-92027, STK32A siRNA (m): sc-153897, STK32A shRNA Plasmid (h): sc-92027-SH, STK32A shRNA Plasmid (m): sc-153897-SH, STK32A shRNA (h) Lentiviral Particles: sc-92027-V and STK32A shRNA (m) Lentiviral Particles: sc-153897-V.

Molecular Weight of STK32A: 46/20/42 kDa.

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.

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 or our catalog for detailed protocols and support products.