SANTA CRUZ BIOTECHNOLOGY, INC.

Speedy C (C-13): sc-169404

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Speedy C, also known as SPDYC, rapid inducer of G_2/M progression in oocytes C, RINGO C or hSpy/Ringo C, is a 293 amino acid protein belonging to the Speedy/Ringo family. Localizing to nucleus, Speedy C is expressed in a variety of tissues including bone marrow, kidney, small intestine, liver, placenta and testis. Speedy C promotes cell cycle progression during late S and G_2 phases by binding and activating CDK1 and CDK2. CDK2 activation requires the C-terminus of Speedy C be present. Speedy C may also be involved in the spindle-assembly checkpoint (SAC). The gene encoding Speedy C maps to human chromosome 11q13.1. With approximately 135 million base pairs and 1,400 genes, chromosome 11 makes up around 4% of human genomic DNA and is considered a gene and disease association dense chromosome.

REFERENCES

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3. Cheng, A., et al. 2005. Identification and comparative analysis of multiple mammalian Speedy/Ringo proteins. Cell Cycle 4: 155-165.
4. Zehelein, J., et al. 2006. Skipping of Exon 1 in the KCNQ1 gene causes Jervell and Lange-Nielsen syndrome. J. Biol. Chem. 281: 35397-35403.
5. Taylor, T.D., et al. 2006. Human chromosome 11 DNA sequence and analysis including novel gene identification. Nature 440: 497-500.
6. Ataga, K.I., et al. 2007. β-thalassaemia and sickle cell anaemia as paradigms of hypercoagulability. Br. J. Haematol. 139: 3-13.
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8. Cheng, A. and Solomon, M.J. 2008. Speedy/Ringo C regulates S and G_2 phase progression in human cells. Cell Cycle 7: 3037-3047.
9. Mourón, S., et al. 2010. RINGO C is required to sustain the spindle-assembly checkpoint. J. Cell Sci. 123: 2586-2595.

CHROMOSOMAL LOCATION

Genetic locus: SPDYC (human) mapping to 11q13.1.

SOURCE

Speedy C (C-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Speedy C of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-169404 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Speedy C (C-13) is recommended for detection of Speedy C of 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); non cross-reactive with Speedy A.

Suitable for use as control antibody for Speedy C siRNA (h): sc-96329, Speedy C shRNA Plasmid (h): sc-96329-SH and Speedy C shRNA (h) Lentiviral Particles: sc-96329-V.

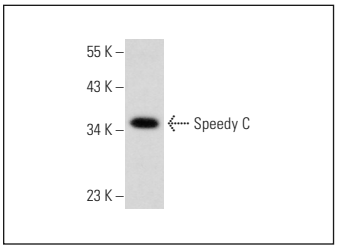
Molecular Weight of Speedy C: 33 kDa.

Positive Controls: Caki-1 cell lysate: sc-2224.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Speedy C (C-13): sc-169404. Western blot analysis of Speedy C expression in Caki-1 whole cell lysate.

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.