SANTA CRUZ BIOTECHNOLOGY, INC.

KILLIN (G-18): sc-243206

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

KILLIN, also known as KLLN, is a 178 amino acid nuclear protein that has affinity for both double- and single-stranded DNA. Through the mediation of p53-induced apoptosis, KILLIN has the ability to inhibit DNA synthesis and S phase arrest coupled to apoptosis. The gene that encodes KILLIN consists of more than 4,000 bases and maps to human chromosome 10q23. Spanning nearly 135 million base pairs, chromosome 10 makes up approximately 4.5% of total DNA in cells and encodes nearly 1,200 genes. Defects in some of the genes that map to chromosome 10 are associated with Charcot-Marie-Tooth disease, Jackson-Weiss syndrome, Usher syndrome, nonsyndromatic deafness, Wolman's syndrome, Cowden syndrome, multiple endocrine neoplasia type 2 and porphyria.

REFERENCES

1. Brandenberger, R., et al. 2004. Transcriptome characterization elucidates signaling networks that control human ES cell growth and differentiation. Nat. Biotechnol. 22: 707-716.
2. Teresi, R.E., et al. 2007. Cowden syndrome-affected patients with PTEN promoter mutations demonstrate abnormal protein translation. Am. J. Hum. Genet. 81: 756-767.
3. Cho, M.Y., et al. 2008. First report of ovarian dysgerminoma in Cowden syndrome with germline PTEN mutation and PTEN-related 10q loss of tumor heterozygosity. Am. J. Surg. Pathol. 32: 1258-1264.
4. Yin, Y., et al. 2008. PTEN: a new guardian of the genome. Oncogene 27: 5443-5453.
5. Cho, Y.J., et al. 2008. Killin is a p53-regulated nuclear inhibitor of DNA synthesis. Proc. Natl. Acad. Sci. USA 105: 5396-5401.
6. Online Mendelian Inheritance in Man, OMIM™. 2008. Johns Hopkins University, Baltimore, MD. MIM Number: 612105. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
7. Laugel, V., et al. 2010. Mutation update for the CSB/ERCC6 and CSA/ERCC8 genes involved in Cockayne syndrome. Hum. Mutat. 31: 113-126.
8. Bennett, K.L., et al. 2010. Germline epigenetic regulation of KILLIN in Cowden and Cowden-like syndrome. JAMA 304: 2724-2731.

CHROMOSOMAL LOCATION

Genetic locus: KLLN (human) mapping to 10q23.31.

SOURCE

KILLIN (G-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of KILLIN of human origin.

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.

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-243206 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-243206 X, 200 µg/0.1 ml.

APPLICATIONS

KILLIN (G-18) is recommended for detection of KILLIN of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 KILLIN siRNA (h): sc-270305, KILLIN shRNA Plasmid (h): sc-270305-SH and KILLIN shRNA (h) Lentiviral Particles: sc-270305-V.

KILLIN (G-18) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of KILLIN: 20 kDa.

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) 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.

PROTOCOLS

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