SANTA CRUZ BIOTECHNOLOGY, INC.

HSF5 (S-17): sc-103554

BACKGROUND

HSF5 (heat shock factor family member 5), also known as HSTF5, is a 596 amino acid protein that localizes to the nucleus and is thought to function as a transcription factor. Multiple isoforms of HSF5 exist due to alternative splicing events. The gene encoding HSF5 maps to human chromosome 17, which comprises over 2.5% of the human genome and encodes over 1,200 genes. Two key tumor suppressor genes are associated with chromosome 17, namely, p53 and BRCA1. Tumor suppressor p53 is necessary for maintenance of cellular genetic integrity by moderating cell fate through DNA repair versus cell death. Malfunction or loss of p53 expression is associated with malignant cell growth and Li-Fraumeni syndrome. Like p53, BRCA1 is directly involved in DNA repair, though specifically it is recognized as a genetic determinant of early onset breast cancer and predisposition to cancers of the ovary, colon, prostate gland and fallopian tubes.

REFERENCES

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3. Nusbaum, R., et al. 2006-2007. Susceptibility to breast cancer: hereditary syndromes and low penetrance genes. Breast Dis. 27: 21-50.
4. Ropolo, A., et al. 2007. The pancreatitis-induced vacuole membrane protein 1 triggers autophagy in mammalian cells. J. Biol. Chem. 282: 37124-37133.
5. Tai, Y.C., et al. 2007. Breast cancer risk among male BRCA1 and BRCA2 mutation carriers. J. Natl. Cancer Inst. 99: 1811-1814.
6. Yan, J., et al. 2007. Blimp-1 regulates cell growth through repression of p53 transcription. Proc. Natl. Acad. Sci. USA 104: 1841-1846.
7. Moparthi, S.B., et al. 2007. Expression of MAC30 protein is related to survival and biological variables in primary and metastatic colorectal cancers. Int. J. Oncol. 30: 91-95.
8. Sauermann, M., et al. 2008. Reduced expression of vacuole membrane protein 1 affects the invasion capacity of tumor cells. Oncogene 27: 1320-1326.
9. Kawahara, A., et al. 2009. The sphingolipid transporter SPNS2 functions in migration of zebrafish myocardial precursors. Science 323: 524-527.

CHROMOSOMAL LOCATION

Genetic locus: HSF5 (human) mapping to 17q22; Hsf5 (mouse) mapping to 11 C.

SOURCE

HSF5 (S-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HSF5 of human origin.

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-103554 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-103554 X, 200 µg/0.1 ml.

APPLICATIONS

HSF5 (S-17) is recommended for detection of HSF5 of mouse, rat and 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); non cross-reactive with other HSF family members.

Suitable for use as control antibody for HSF5 siRNA (h): sc-105542, HSF5 siRNA (m): sc-105543, HSF5 shRNA Plasmid (h): sc-105542-SH, HSF5 shRNA Plasmid (m): sc-105543-SH, HSF5 shRNA (h) Lentiviral Particles: sc-105542-V and HSF5 shRNA (m) Lentiviral Particles: sc-105543-V.

HSF5 (S-17) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of HSF5: 65 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.

STORAGE

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

PROTOCOLS

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