SANTA CRUZ BIOTECHNOLOGY, INC.

Slfn5 (4G2): sc-293255

BACKGROUND

Slfn5 (schlafen family member 5) is an 891 amino acid protein that exists as multiple alternatively spliced isoforms and is thought to play a role in hematopoeitic cell differentiation. The gene encoding Slfn5 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., Vogel, K.J. and Ready, K. 2006. Susceptibility to breast cancer: hereditary syndromes and low penetrance genes. Breast Dis. 27: 21-50.
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5. Tai, Y.C., Domchek, S., Parmigiani, G. and Chen, S. 2007. Breast cancer risk among male BRCA1 and BRCA2 mutation carriers. J. Natl. Cancer Inst. 99: 1811-1814.
6. Yan, J., Jiang, J., Lim, C.A., Wu, Q., Ng, H.H. and Chin, K.C. 2007. BLIMP1 regulates cell growth through repression of p53 transcription. Proc. Natl. Acad. Sci. USA 104: 1841-1846.

CHROMOSOMAL LOCATION

Genetic locus: SLFN5 (human) mapping to 17q12.

SOURCE

Slfn5 (4G2) is a mouse monoclonal antibody raised against amino acids 1-338 representing full length Slfn5 of human origin.

PRODUCT

Each vial contains 100 µg IgG_1 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

Slfn5 (4G2) is recommended for detection of Slfn5 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Slfn5 siRNA (h): sc-94178, Slfn5 shRNA Plasmid (h): sc-94178-SH and Slfn5 shRNA (h) Lentiviral Particles: sc-94178-V.

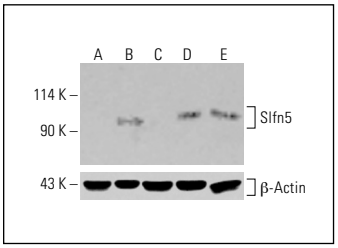
Molecular Weight of Slfn5: 101 kDa.

Positive Controls: human placenta extract: sc-363772.

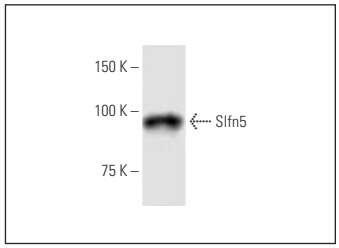
RECOMMENDED SUPPORT REAGENTS

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).

DATA



Slfn5 (4G2): sc-293255. Western blot analysis of Slfn5 expression in untreated K-562 (**A**), chemically-treated K-562 (**B**), untreated HCT-116 (**C**), chemically-treated HCT-116 (**D**) and HeLa (**E**) whole cell lysates. β-Actin (C4): sc-47778 used as loading control. Detection reagent used: m-IgG Fc BP-HRP: sc-525409.



Slfn5 (4G2): sc-293255. Western blot analysis of Slfn5 expression in human placenta tissue extract.

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.