

# TUSC5 (M-110): sc-292062

## BACKGROUND

TUSC5 (tumor suppressor candidate 5), also known as protein located at 17p13.3, LOST1 or IFITMD3 (interferon-induced transmembrane domain-containing protein D3), is a 177 amino acid multi-pass membrane protein that belongs to the CD225 family. Thought to play a role in fat metabolism, TUSC5 is highly expressed in mammary gland, heart, smooth muscle, skeletal muscle and stomach, with lower levels found in lung and brain. The gene encoding TUSC5 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. 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, and is linked to predisposition of cancers of the ovary, colon, prostate gland and fallopian tubes.

## REFERENCES

- Hall, J.M., et al. 1992. Closing in on a breast cancer gene on chromosome 17q. *Am. J. Hum. Genet.* 50: 1235-1242.
- Evans, S.C., et al. 1997. The Li-Fraumeni syndrome: an inherited susceptibility to cancer. *Mol. Med. Today* 3: 390-395.
- Soussi, T., et al. 2000. p53 website and analysis of p53 gene mutations in human cancer: forging a link between epidemiology and carcinogenesis. *Hum. Mutat.* 15: 105-113.
- Piura, B., et al. 2001. Three primary malignancies related to BRCA mutation successively occurring in a BRCA1 185delAG mutation carrier. *Eur. J. Obstet. Gynecol. Reprod. Biol.* 97: 241-244.
- Minamoto, T., et al. 2001. Distinct pattern of p53 phosphorylation in human tumors. *Oncogene* 20: 3341-3347.
- Konishi, H., et al. 2003. Detailed characterization of a homozygously deleted region corresponding to a candidate tumor suppressor locus at distal 17p13.3 in human lung cancer. *Oncogene* 22: 1892-1905.
- Koide, H., et al. 2007. Tumor suppressor candidate 5 (TUSC5) is expressed in brown adipocytes. *Biochem. Biophys. Res. Commun.* 360: 139-145.

## CHROMOSOMAL LOCATION

Genetic locus: TUSC5 (human) mapping to 17p13.3; Tusc5 (mouse) mapping to 11 B5.

## SOURCE

TUSC5 (M-110) is a rabbit polyclonal antibody raised against amino acids 1-110 mapping at the N-terminus of TUSC5 of mouse origin.

## PRODUCT

Each vial contains 200 µg IgG 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

TUSC5 (M-110) is recommended for detection of TUSC5 of mouse, rat and 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).

Suitable for use as control antibody for TUSC5 siRNA (h): sc-93933, TUSC5 siRNA (m): sc-154809, TUSC5 shRNA Plasmid (h): sc-93933-SH, TUSC5 shRNA Plasmid (m): sc-154809-SH, TUSC5 shRNA (h) Lentiviral Particles: sc-93933-V and TUSC5 shRNA (m) Lentiviral Particles: sc-154809-V.

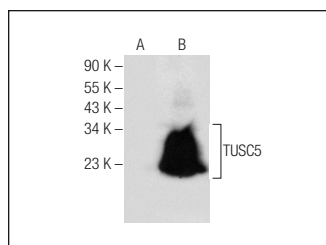
Molecular Weight of TUSC5: 19 kDa.

Positive Controls: TUSC5 (h): 293T Lysate: sc-112682.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



TUSC5 (M-110): sc-292062. Western blot analysis of TUSC5 expression in non-transfected: sc-117752 (A) and human TUSC5 transfected: sc-112682 (B) 293T whole cell lysates.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

**MONOS**  
Satisfaction  
Guaranteed

Try **TUSC5 (C-5): sc-514114** or **TUSC5 (B-4): sc-377025**, our highly recommended monoclonal alternatives to TUSC5 (M-110).