

LHFPL5 (D-15): sc-103598

BACKGROUND

The development of lipomas, benign tumors composed of fatty tissues, have been linked to breakpoints in the HMGIC gene. LHFPL (lipoma HMGIC fusion partner) is a 200 amino acid multi-pass membrane protein that acts as a fusion partner with HMGIC in a lipoma with the translocation t(12;13)(q13-q15;q12). As a LHFPL family member, LHFPL4 (lipoma HMGIC fusion partner-like 4 protein) is a 247 amino acid multi-pass membrane protein that is encoded by a gene which is found to be methylated in 55% of cervical cancers. This suggests that LHFPL4 is a novel methylation target specific for cervical cancer and may be evaluated for early detection and risk prediction. LHFPL4 shares 62% sequence similarity with LHFPL5, a protein which has been linked to normal function of the human cochlea. Mutations in the LHFPL5 gene cause non-syndromic sensorineural deafness autosomal recessive type 67 (DFNB67).

REFERENCES

- Petit, M.M., et al. 1999. LHFPL, a novel translocation partner gene of HMGIC in a lipoma, is a member of a new family of LHFPL-like genes. *Genomics* 57: 438-441.
- Rogalla, P., et al. 2002. Absence of HMGIC-LHFPL fusion in pulmonary chondroid hamartomas with aberrations involving chromosomal regions 12q13 through 15 and 13q12 through q14. *Cancer Genet. Cytogenet.* 133: 90-93.
- Longo-Guess, C.M., et al. 2005. A missense mutation in the previously undescribed gene *Tmhs* underlies deafness in hurry-scurry (*hscy*) mice. *Proc. Natl. Acad. Sci. USA* 102: 7894-7899.
- Nilsson, M., et al. 2006. Truncation and fusion of HMG2 in lipomas with rearrangements of 5q32→q33 and 12q14→q15. *Cytogenet. Genome Res.* 112: 60-66.
- Mansouri, M.R., et al. 2006. Molecular genetic analysis of a *de novo* balanced translocation t(6;17)(p21.31;q11.2) associated with hypospadias and anorectal malformation. *Hum. Genet.* 119: 162-168.
- Kalay, E., et al. 2006. Mutations in the lipoma HMGIC fusion partner-like 5 (LHFPL5) gene cause autosomal recessive nonsyndromic hearing loss. *Hum. Mutat.* 27: 633-639.
- Shabbir, M.I., et al. 2006. Mutations of human *TMHS* cause recessively inherited non-syndromic hearing loss. *J. Med. Genet.* 43: 634-640.
- Wang, S.S., et al. 2008. Identification of novel methylation markers in cervical cancer using restriction landmark genomic scanning. *Cancer Res.* 68: 2489-2497.

CHROMOSOMAL LOCATION

Genetic locus: LHFPL5 (human) mapping to 6p21.31; *Tmhs* (mouse) mapping to 17 A3.3.

STORAGE

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

SOURCE

LHFPL5 (D-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of LHFPL5 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-103598 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

LHFPL5 (D-15) is recommended for detection of LHFPL5 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 LHFPL family members.

Suitable for use as control antibody for LHFPL5 siRNA (h): sc-95425, LHFPL5 siRNA (m): sc-105613, LHFPL5 shRNA Plasmid (h): sc-95425-SH, LHFPL5 shRNA Plasmid (m): sc-105613-SH, LHFPL5 shRNA (h) Lentiviral Particles: sc-95425-V and LHFPL5 shRNA (m) Lentiviral Particles: sc-105613-V.

Molecular Weight of LHFPL5: 24 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.

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.