

Lmf1 (V-15): sc-164886

BACKGROUND

Lmf1 (lipase maturation factor 1), also known as C16orf26, TMEM112 or JFP11, is a 567 amino acid multi-pass membrane protein that localizes to the endoplasmic reticulum (ER) and belongs to the lipase maturation family. Expressed in a variety of tissues, including pancreas, testis, liver, heart and skeletal muscle, Lmf1 is involved in the maturation of ER-localized proteins and is required for the transport of active LPL (lipoprotein lipase) through the secretory pathway. Defects in the gene encoding Lmf1 are the cause of combined lipase deficiency (CLD), an LPL disorder that is characterized by pancreatitis, lipodystrophy and tuberous xanthomas. The gene encoding Lmf1 maps to human chromosome 16, which houses over 900 genes and comprises nearly 3% of the human genome.

REFERENCES

1. Davis, R.C., et al. 1990. Combined lipase deficiency in the mouse. Evidence of impaired lipase processing and secretion. *J. Biol. Chem.* 265: 17960-17966.
2. Daniels, R.J., et al. 2001. Sequence, structure and pathology of the fully annotated terminal 2 Mb of the short arm of human chromosome 16. *Hum. Mol. Genet.* 10: 339-352.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 246650. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Péterfy, M., et al. 2006. The cld mutation: narrowing the critical chromosomal region and selecting candidate genes. *Mamm. Genome.* 17: 1013-1024.
5. Péterfy, M., et al. 2007. Mutations in LMF1 cause combined lipase deficiency and severe hypertriglyceridemia. *Nat. Genet.* 39: 1483-1487.

CHROMOSOMAL LOCATION

Genetic locus: LMF1 (human) mapping to 16p13.3; Lmf1 (mouse) mapping to 17 A3.3.

SOURCE

Lmf1 (V-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Lmf1 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-164886 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

Lmf1 (V-15) is recommended for detection of Lmf1 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 Lmf2.

Lmf1 (V-15) is also recommended for detection of Lmf1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Lmf1 siRNA (h): sc-93070, Lmf1 siRNA (m): sc-146766, Lmf1 shRNA Plasmid (h): sc-93070-SH, Lmf1 shRNA Plasmid (m): sc-146766-SH, Lmf1 shRNA (h) Lentiviral Particles: sc-93070-V and Lmf1 shRNA (m) Lentiviral Particles: sc-146766-V.

Molecular Weight of Lmf1: 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.

RESEARCH USE

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