

## LSR (X-25): sc-133765

### BACKGROUND

LSR (lipolysis stimulated lipoprotein receptor), also known as ILDR3 or LISCH7, is a 649 amino acid single-pass membrane protein that contains one immunoglobulin-like domain and localizes to the cell membrane. Existing as a homotrimer or a homotetramer, LSR is thought to play a role in the clearing of triglyceride-rich lipoproteins from blood, specifically via binding to low density lipoproteins (LDLs) and very low density lipoproteins (VLDLs) and facilitating their uptake into cells. Overexpression of LSR may be associated with increased colon tumor growth, suggesting an involvement for LSR in tumor formation and metastasis. Multiple isoforms of LSR exist due to alternative splicing events. The gene encoding LSR maps to human chromosome 19, which consists of over 63 million bases, houses approximately 1,400 genes and is recognized for having the greatest gene density of the human chromosomes.

### REFERENCES

1. Yen, F.T., et al. 1999. Molecular cloning of a lipolysis-stimulated remnant receptor expressed in the liver. *J. Biol. Chem.* 274: 13390-13398.
2. Hauge, H., et al. 2004. Characterization of a novel immunoglobulin-like domain containing receptor. *Biochem. Biophys. Res. Commun.* 323: 970-978.
3. Kim, J.E., et al. 2005. Global phosphoproteome of HT-29 human colon adenocarcinoma cells. *J. Proteome Res.* 4: 1339-1346.
4. García, J.M., et al. 2007. Prognostic value of LISCH7 mRNA in plasma and tumor of colon cancer patients. *Clin. Cancer Res.* 13: 6351-6358.

### CHROMOSOMAL LOCATION

Genetic locus: LSR (human) mapping to 9q13.3; Lsr (mouse) mapping to 7 B1.

### SOURCE

LSR (X-25) is an affinity purified rabbit polyclonal antibody raised against synthetic LSR peptide of human origin.

### PRODUCT

Each vial contains 50 µg IgG in 500 µl PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

### APPLICATIONS

LSR (X-25) is recommended for detection of LSR of mouse, rat, human and canine 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 LSR siRNA (h): sc-97082, LSR siRNA (m): sc-149135, LSR shRNA Plasmid (h): sc-97082-SH, LSR shRNA Plasmid (m): sc-149135-SH, LSR shRNA (h) Lentiviral Particles: sc-97082-V and LSR shRNA (m) Lentiviral Particles: sc-149135-V.

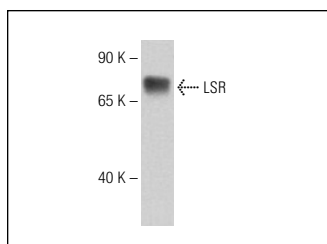
Molecular Weight of LSR: 71 kDa.

Positive Controls: human fetal liver tissue extract.

### 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).

### DATA



LSR (X-25): sc-133765. Western blot analysis of LSR expression in human fetal liver tissue extract.

### SELECT PRODUCT CITATION

1. Jun, J.Y., et al. 2011. Spontaneously diabetic *Ins2<sup>+/Akita</sup>:apoE*-deficient mice exhibit exaggerated hypercholesterolemia and atherosclerosis. *Am. J. Physiol. Endocrinol. Metab.* 301: E145-E154.
2. Papatheodorou, P., et al. 2011. Lipolysis-stimulated lipoprotein receptor (LSR) is the host receptor for the binary toxin *Clostridium difficile* transferase (CDT). *Proc. Natl. Acad. Sci. USA* 108: 16422-16427.
3. Papatheodorou, P., et al. 2012. Identification of the cellular receptor of *Clostridium spiroforme* toxin. *Infect. Immun.* 80: 1418-1423.
4. Jun, J.Y., et al. 2012. Leptin treatment inhibits the progression of atherosclerosis by attenuating hypercholesterolemia in type 1 diabetic *Ins2<sup>+/Akita</sup>:apoE<sup>-/-</sup>* mice. *Atherosclerosis* 225: 341-347.
5. Papatheodorou, P., et al. 2013. *Clostridium difficile* binary toxin CDT induces clustering of the lipolysis-stimulated lipoprotein receptor into lipid rafts. *MBio* 4: e00244-e00213.

### STORAGE

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

### RESEARCH USE

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

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.