SANTA CRUZ BIOTECHNOLOGY, INC.

LEPROT (V-15): sc-103596

BACKGROUND

Mutation of Ob (Obesity factor), also known as leptin precursor, results in profound obesity and type II diabetes as part of a syndrome that resembles morbid obesity in humans. The Ob gene product may function as a component of a signaling pathway in adipose tissue that functions to regulate body fat. The leptin receptor, designated Ob-R, has been shown to be a single membrane-spanning receptor that most resembles the gp130 signal transducing component of the IL-6, G-CSF and LIF receptor. LEPROT (leptin receptor overlapping transcript), also known as LEPR, VPS55 or OBRGRP, is a 131 amino acid multi-pass membrane protein that is highly expressed in placenta and heart and may play a role in energy homeostasis and body weight control. The gene encoding LEPROT maps to human chromosome 1, which spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome.

REFERENCES

1. White, D.W. and Tartaglia, L.A. 1996. Leptin and OB-R: body weight regulation by a cytokine receptor. Cytokine Growth Factor Rev. 7: 303-309.
2. Campfield, L.A., Smith, F.J. and Burn, P. 1996. The OB protein (leptin) pathway—a link between adipose tissue mass and central neural networks. Horm. Metab. Res. 28: 619-632.
3. Friedman, J.M. 1997. Leptin, leptin receptors and the control of body weight. Eur. J. Med. Res. 2: 7-13.
4. Bailleul, B., Akerblom, I. and Strosberg, A.D. 1997. The leptin receptor promoter controls expression of a second distinct protein. Nucleic Acids Res. 25: 2752-2758.
5. Sone, M. and Osamura, R.Y. 2001. Leptin and the pituitary. Pituitary 4: 15-23.
6. Kim, J.H., Ovilo, C., Park, E.W., Fernndez, A., Lee, J.H., Jeon, J.T. and Lee, J.G. 2008. Minimizing a QTL region for intramuscular fat content by characterizing the porcine phosphodiesterase 4B (PDE4B) gene. BMB Rep. 41: 466-471.

CHROMOSOMAL LOCATION

Genetic locus: LEPROT (human) mapping to 1p31.3; Leprot (mouse) mapping to 4 C6.

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 or our catalog for detailed protocols and support products.

SOURCE

LEPROT (V-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of LEPROT 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-103596 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

LEPROT (V-15) is recommended for detection of LEPROT 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 LEPROTL1.

Suitable for use as control antibody for LEPROT siRNA (h): sc-88262, LEPROT siRNA (m): sc-105612, LEPROT shRNA Plasmid (h): sc-88262-SH, LEPROT shRNA Plasmid (m): sc-105612-SH, LEPROT shRNA (h) Lentiviral Particles: sc-88262-V and LEPROT shRNA (m) Lentiviral Particles: sc-105612-V.

Molecular Weight of LEPROT: 14 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.