

Peg1 (M-20)-R: sc-51180-R

BACKGROUND

Mesoderm-specific transcript (MEST), also designated paternally expressed imprinted gene 1 (PEG1), is an imprinted gene expressed from the paternal allele. MEST expression is markedly enhanced in white adipose tissue and could be a novel marker of the size of adipocytes. In addition, frequent loss of imprinting (LOI) of MEST may be involved in pathogenesis of lung adenocarcinoma. The human homolog of the MEST gene shares approximately 70% nucleotide sequence homology with the mouse gene. Human Peg1, the protein encoded by the MEST gene, is thought to consist of 335 amino acid residues and contains a potential N-linked glycosylation site. Expression of Peg1 is demonstrated in human placental trophoblast and endothelium and may be involved in the modulation of placental and fetal growth. Studies show that Peg1 expression increases significantly in the white adipose tissue of mice with diet-induced and genetically caused obesity/diabetes, but not with streptozotocin-induced diabetes.

REFERENCES

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8. Nakabayashi, K., et al. 2002. Identification and characterization of an imprinted antisense RNA (MESTIT1) in the human MEST locus on chromosome 7q32. *Hum. Mol. Genet.* 11: 1743-1756.
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CHROMOSOMAL LOCATION

Genetic locus: MEST (human) mapping to 7q32.2; Mest (mouse) mapping to 6 A3.3.

SOURCE

Peg1 (M-20)-R is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of Peg1 of mouse origin.

RESEARCH USE

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

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-51180 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Peg1 (M-20)-R is recommended for detection of Peg1 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); may cross-react with ERF.

Peg1 (M-20)-R is also recommended for detection of Peg1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Peg1 siRNA (h): sc-61315, Peg1 siRNA (m): sc-61316, Peg1 shRNA Plasmid (h): sc-61315-SH, Peg1 shRNA Plasmid (m): sc-61316-SH, Peg1 shRNA (h) Lentiviral Particles: sc-61315-V and Peg1 shRNA (m) Lentiviral Particles: sc-61316-V.

Molecular Weight of Peg1 isoforms 1/2/3: 39/38/34 kDa.

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) 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.

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.