

PLAC1 (N-15): sc-47331

BACKGROUND

Placenta-specific proteins (PLACs) are X-linked proteins. The PLAC1 gene maps to a region of the X chromosome known to be important for placental growth. PLAC1 shows placenta-specific expression and is considered a marker for placental development. PLAC1 may play a role establishing the mother-fetus interface and is expressed exclusively by cells of trophoblastic lineage. PLAC1 expression is upregulated during trophoblast differentiation and its expression is regulated by peptide growth factors. It is detectable in maternal blood, but rapidly disappears after delivery.

REFERENCES

1. Cocchia, M., Huber, R., Pantano, S., Chen, E.Y., Ma, P., Forabosco, A., Ko, M.S. and Schlessinger, D. 2000. PLAC1, an Xq26 gene with placenta-specific expression. *Genomics* 68: 305-312.
2. Fant, M., Weisoly, D.L., Cocchia, M., Huber, R., Khan, S., Lunt, T. and Schlessinger, D. 2002. PLAC1, a trophoblast-specific gene, is expressed throughout pregnancy in the human placenta and modulated by keratinocyte growth factor. *Mol. Reprod. Dev.* 63: 430-436.
3. Massabba, E., Parveen, S., Weisoly, D.L., Nelson, D.M., Smith, S.D. and Fant, M. 2005. PLAC1 expression increases during trophoblast differentiation: evidence for regulatory interactions with the fibroblast growth factor-7 (FGF-7) axis. *Mol. Reprod. Dev.* 71: 299-304.
4. Concu, M., Banzola, I., Farina, A., Sekizawa, A., Rizzo, N., Marini, M., Caramelli, E. and Carinci, P. 2005. Rapid clearance of mRNA for PLAC1 gene in maternal blood after delivery. *Fetal Diagn. Ther.* 20: 27-30.
5. Farina, A., Rizzo, N., Concu, M., Banzola, I., Sekizawa, A., Grotti, S. and Carinci, P. 2005. Lower maternal PLAC1 mRNA in pregnancies complicated with vaginal bleeding (threatened abortion <20 weeks) and a surviving fetus. *Clin. Chem.* 51: 224-227.

CHROMOSOMAL LOCATION

Genetic locus: PLAC1 (human) mapping to Xq26.3; Plac1 (mouse) mapping to X A5.

SOURCE

PLAC1 (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of PLAC1 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-47331 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.

APPLICATIONS

PLAC1 (N-15) is recommended for detection of PLAC1 of human and, to a lesser extent, mouse and rat 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).

PLAC1 (N-15) is also recommended for detection of PLAC1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PLAC1 siRNA (h): sc-61363, PLAC1 siRNA (m): sc-61364, PLAC1 shRNA Plasmid (h): sc-61363-SH, PLAC1 shRNA Plasmid (m): sc-61364-SH, PLAC1 shRNA (h) Lentiviral Particles: sc-61363-V and PLAC1 shRNA (m) Lentiviral Particles: sc-61364-V.

Molecular Weight of PLAC1: 30 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.



Try **PLAC1 (G-1): sc-365919**, our highly recommended monoclonal alternative to PLAC1 (N-15).