

# PLAC1 (M-108): sc-98997

## 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., et al. 2000. PLAC1, an Xq26 gene with placenta-specific expression. *Genomics* 68: 305-312.
2. Fant, M., et al. 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., et al. 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. Farina, A., et al. 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 (mouse) mapping to X A5.

## SOURCE

PLAC1 (M-108) is a rabbit polyclonal antibody raised against amino acids 61-168 mapping near the C-terminus of PLAC1 of mouse origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

PLAC1 (M-108) is recommended for detection of PLAC1 of mouse and rat 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)], 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).

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

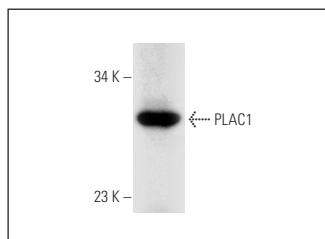
Molecular Weight of PLAC1: 30 kDa.

Positive Controls: mouse placenta extract: sc-364247, NIH/3T3 whole cell lysate: sc-2210 or 3T3-L1 cell lysate: sc-2243.

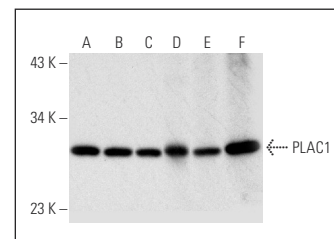
## RECOMMENDED SECONDARY REAGENTS

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). 3) 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.

## DATA



PLAC1 (M-108): sc-98997. Western blot analysis of PLAC1 expression in mouse placenta tissue extract.



PLAC1 (M-108): sc-98997. Western blot analysis of PLAC1 expression in NIH/3T3 (A), 3T3-L1 (B) and RAW 264.7 (C) whole cell lysates and rat kidney (D), mouse liver (E) and rat placenta (F) tissue extracts.

## RESEARCH USE

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

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.