

PLAC4 (P-15): sc-79680

BACKGROUND

PLAC4 (placenta-specific 4), also known as D21S418E, is a 150 amino acid protein that is expressed in maternal plasma by placental syncytiotrophoblast and choriocarcinoma cells. PLAC4 is fetal derived, therefore it is specifically expressed during pregnancy and clears from maternal plasma within 24 hours after delivery. The PLAC4 gene is located on chromosome 21 and has four single nucleotide polymorphisms (SNPs) in its transcribed regions. This allows for PLAC4 to be a target gene in the noninvasive prenatal detection of trisomy 21 by allelic ratio analysis of placental expressed mRNA transcripts in maternal plasma. In a heterozygous fetus, both alleles of an SNP should be represented equally. An imbalance in allele frequency, giving a 2:1 ratio, suggests an additional copy of chromosome 21 and thus detection of trisomy 21. In addition, PLAC4 may be a useful target in the prenatal detection of Down syndrome.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: PLAC4 (human) mapping to 21q22.3.

RESEARCH USE

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

SOURCE

PLAC4 (P-15) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of PLAC4 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-79680 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PLAC4 (P-15) is recommended for detection of PLAC4 of 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).

Suitable for use as control antibody for PLAC4 siRNA (h): sc-76166, PLAC4 shRNA Plasmid (h): sc-76166-SH and PLAC4 shRNA (h) Lentiviral Particles: sc-76166-V.

Molecular Weight of PLAC4: 17 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.