

Angptl7 (P-12): sc-160134

BACKGROUND

Angptl7 (angiopoietin-like 7), alternately known as cornea-derived transcript 6 protein (CDT6) or AngX, is a 346 amino acid secreted protein that is expressed specifically in the stromal layer of cornea. Angptl7 forms disulfide-linked homotetramers via coiled-coil interactions and contains one fibrinogen C-terminal domain. Overexpressed in patients with glaucoma, Angptl7 serves as a potential therapeutic target for glaucoma and has been found to increase collagen expression. The gene encoding Angptl7 maps to human chromosome 1, which spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome. Chromosome 1 houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome.

REFERENCES

1. Lim, Y.S., et al. 1994. The thiol-specific antioxidant protein from human brain: gene cloning and analysis of conserved cysteine regions. *Gene* 140: 279-284.
2. Shau, H., et al. 1994. Cloning and sequence analysis of candidate human natural killer-enhancing factor genes. *Immunogenetics* 40: 129-134.
3. Peek, R., et al. 1998. Molecular cloning of a new angiopoietinlike factor from the human cornea. *Invest. Ophthalmol. Vis. Sci.* 39: 1782-1788.
4. Peek, R., et al. 2002. The angiopoietin-like factor cornea-derived transcript 6 is a putative morphogen for human cornea. *J. Biol. Chem.* 277: 686-693.
5. Tsigkos, S., et al. 2003. Angiopoietins in angiogenesis and beyond. *Expert Opin. Investig. Drugs* 12: 933-941.
6. Plasilova, M., et al. 2004. Exclusion of an extracolonic disease modifier locus on chromosome 1p33-36 in a large Swiss familial adenomatous polyposis kindred. *Eur. J. Hum. Genet.* 12: 365-371.
7. Kuchtey, J., et al. 2008. Angiopoietin-like 7 secretion is induced by glaucoma stimuli and its concentration is elevated in glaucomatous aqueous humor. *Invest. Ophthalmol. Vis. Sci.* 49: 3438-3448.
8. Yokoi, T., et al. 2009. Analysis of the vitreous membrane in a case of type 1 Stickler syndrome. *Graefes Arch. Clin. Exp. Ophthalmol.* 247: 715-718.

CHROMOSOMAL LOCATION

Genetic locus: ANGPTL7 (human) mapping to 1p36.22; Angptl7 (mouse) mapping to 4 E2.

SOURCE

Angptl7 (P-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Angptl7 of human origin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

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-160134 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Angptl7 (P-12) is recommended for detection of Angptl7 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 other Angptl family members.

Angptl7 (P-12) is also recommended for detection of Angptl7 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Angptl7 siRNA (h): sc-88201, Angptl7 siRNA (m): sc-141063, Angptl7 shRNA Plasmid (h): sc-88201-SH, Angptl7 shRNA Plasmid (m): sc-141063-SH, Angptl7 shRNA (h) Lentiviral Particles: sc-88201-V and Angptl7 shRNA (m) Lentiviral Particles: sc-141063-V.

Molecular Weight of Angptl7: 45 kDa.

Molecular Weight of Angptl7 doublet: 48 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.