



Clusterin-L1 (E-15): sc-84796

BACKGROUND

Clusterin, also designated complement lysis inhibitor (CLI), apolipoprotein J (ApoJ), sulfated glycoprotein 2 (SGP2), SP-40 or testosterone-repressed prostate message 2 (TRPM2), is a secretory, heterodimeric glycoprotein that influences immune regulation, cell adhesion, transformation, lipid transportation, tissue remodeling, membrane recycling and cell-cell interactions. Clusterin is synthesized as a 449 amino acid polypeptide that is post-translationally cleaved at an internal bond between Arg 227 and Ser 228. Clusterin-L1 (clusterin-like 1), also known as CLUL1, is a 466 amino acid secreted protein belonging to the Clusterin family and is exclusively expressed in cone photoreceptor cells. The gene encoding Clusterin-L1 is considered a candidate locus for retinal disease such as age-related macular degeneration, which is the leading cause of blindness in the elderly population.

REFERENCES

- Zhang, Q., Ray, K., Acland, G.M., Czarnecki, J.M. and Aguirre, G.D. 2000. Molecular cloning, characterization and expression of a novel retinal clusterin-like protein cDNA. *Gene* 243: 151-160.
- Zhang, Q., Beltran, W.A., Mao, Z., Li, K., Johnson, J.L., Acland, G.M. and Aguirre, G.D. 2003. Comparative analysis and expression of CLUL1, a cone photoreceptor-specific gene. *Invest. Ophthalmol. Vis. Sci.* 44: 4542-4549.
- Young, T.L. 2004. Dissecting the genetics of human high myopia: a molecular biologic approach. *Trans. Am. Ophthalmol. Soc.* 102: 423-445.
- Scavallo, G.S., Paluru, P.C., Zhou, J., White, P.S., Rappaport, E.F. and Young, T.L. 2005. Genomic structure and organization of the high grade Myopia-2 locus (MYP2) critical region: mutation screening of 9 positional candidate genes. *Mol. Vis.* 11: 97-110.
- Gehrs, K.M., Anderson, D.H., Johnson, L.V. and Hageman, G.S. 2006. Age-related macular degeneration—emerging pathogenetic and therapeutic concepts. *Ann. Med.* 38: 450-471.
- Sturgill, G.M., Pauer, G.J., Bala, E., Simpson, E., Yaniglos, S.S., Crabb, J.W., Hollyfield, J.G., Lewis, H., Peachey, N.S. and Hagstrom, S.A. 2006. Mutation screen of the cone-specific gene, CLUL1, in 376 patients with age-related macular degeneration. *Ophthalmic Genet.* 27: 151-155.
- Nowak, J.Z. 2006. Age-related macular degeneration (AMD): pathogenesis and therapy. *Pharmacol. Rep.* 58: 353-363.

CHROMOSOMAL LOCATION

Genetic locus: CLUL1 (human) mapping to 18p11.32.

SOURCE

Clusterin-L1 (E-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Clusterin-L1 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-84796 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Clusterin-L1 (E-15) is recommended for detection of Clusterin-L1 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); non cross-reactive with other Clusterin family members.

Suitable for use as control antibody for Clusterin-L1 siRNA (h): sc-72930, Clusterin-L1 shRNA Plasmid (h): sc-72930-SH and Clusterin-L1 shRNA (h) Lentiviral Particles: sc-72930-V.

Molecular Weight of Clusterin-L1: 55 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.