

## Clusterin Human HEK293

### Product Data Sheet

<b>Type:</b> Recombinant	<b>Cat. No.:</b>
<b>Source:</b> HEK293	RD172034020 (0.02 mg)
<b>Species:</b> Human	RD172034100 (0.1 mg)
<b>Other names:</b> Apolipoprotein J, Apo J	

### Description

Total 438 AA, M.w. 51.27kDa (calculated). The AA sequence (AA 1-427) is identical to Swiss-Prot-P10909 (AA 23-449, secreted Human Clusterin). C-terminal Flag-tag, 11 extra AA (highlighted).

### Introduction to the Molecule

Clusterin is a 75-80 kD disulfide-linked heterodimeric protein containing about 30% of N-linked carbohydrate rich in sialic acid, but truncated forms targeted to the nucleus have also been identified.

The precursor polypeptide chain is cleaved proteolytically to remove the 22-mer secretory signal peptide and subsequently between residues 227/228 to generate the alpha and beta chains. These are assembled anti-parallel to give a heterodimeric molecule in which the cysteine-rich centers are linked by five disulfide bridges and are flanked by two predicted coiled-coil alpha-helices and three predicted amphipathic alpha-helices. The six sites of N-linked glycosylation are indicated as yellow spots.

Across a broad range of species clusterin shows 70% to 80% of sequence homology. It is ubiquitously expressed in most mammalian tissues and can be found in plasma, milk, urine, cerebrospinal fluid and semen.

It is able to bind and form complexes with numerous partners such as immunoglobulins, lipids, heparin, bacteria, complement components, paraoxonase, beta amyloid, leptin and others. Clusterin has been ascribed a plethora of functions such as phagocyte recruitment, aggregation induction, complement attack prevention, apoptosis inhibition, membrane remodelling, lipid transport, hormone transport and/or scavenging, matrix metalloproteinase inhibition.

A detailed mechanism of clusterin has not been defined. One tempting hypothesis says that clusterin is an extracellular chaperone protecting cells from stress induced by degraded and misfolded protein precipitates. Clusterin is up- or downregulated on the mRNA or protein level in many pathological and clinically relevant situations including cancer, organ regeneration, infection, Alzheimer disease, retinitis pigmentosa, myocardial infarction, renal tubular damage, autoimmunity and others.

### Research topic

Others, Renal disease

### Amino Acid Sequence

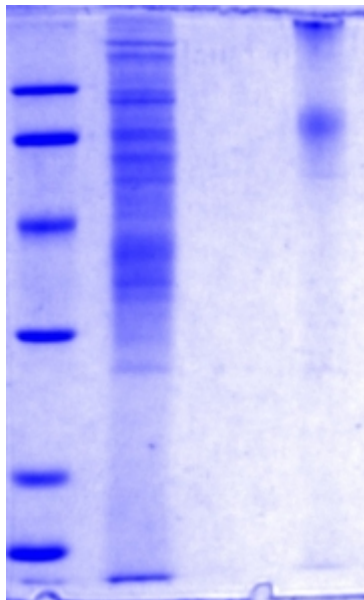
DQTVSDNELQ EMSNQGSKYV NKEIQNAVNG VKQIKTLIEK TNEERKTLIS NLEEAKKKKE DALNETRESE TKLKELPGVC  
 NETMMALWEE CKPCLKQTCM KFYARVCRSG SGLVGRQLEE FLNQSSPFYF WMNGDRIDSL LENDRQQTHM LDVMQDHFSS  
 ASSIIDELFQ DRFFTREPQD TYHYLPFSLP HRRPHFFFPK SRIVRSLMPF SPYEPLNFHA MFQPFLMFIH EAQQAMDIHF  
 HSPAFQHPPT EFIREGDDDR TVCREIRHNS TGCLRMKDQC DKCREILSVD CSTNNPSQAK LRRELDESLQ VAERLTRKYN  
 ELLKSYQWKM LNTSSLLEQL NEQFNWVSRL ANLTQGEDQY YLRVTTVASH TSDSDVPSGV TEVVVKLFDS DPITVTVPVE  
 VSRKNPKFME TVA EKALQEY RKKHREE**AAA DYKDDDDK**

Asp 1 to Thr 3 and Ser 5 were confirmed by N-terminal sequencing.

### Source

HEK293

## SDS-PAGE gel



12% SDS-PAGE separation of Human Clusterin  
 1. M.W. marker - 14, 21, 31, 45, 66, 97 kDa  
 2. reduced and heated sample, 5 $\mu$ g/lane  
 3. non-reduced and non-heated sample, 5 $\mu$ g/lane

## Formulation

Filtered (0,4  $\mu$ m) and lyophilized from 0.5 mg/ml in 20mM Tris buffer, 20mM NaCl, pH 7.5

## Reconstitution

Add deionized water to prepare a working stock solution of approximately 0.5 mg/mL and let the lyophilized pellet dissolve completely. Product is not sterile! Please filter the product by an appropriate sterile filter before using it in the cell culture.

## Storage, Stability/Shelf Life

Store lyophilized protein at -20°C. Lyophilized protein remains stable until the expiry date when stored at -20°C. Aliquot reconstituted protein to avoid repeated freezing/thawing cycles and store at -80°C for long term storage. Reconstituted protein can be stored at 4°C for a limited period of time; it does not show any change after one week at 4°C.

## Quality Control Test

BCA to determine quantity of the protein.  
 SDS PAGE to determine purity of the protein.

## Applications

Cell culture and/or animal studies, ELISA, Western blotting

## Note

This product is intended for research use only.

## References to this Product

- Zhang F, Sha J, Wood TG, Galindo CL, Garner HR, Burkart MF, Suarez G, Sierra JC, Agar SL, Peterson JW, Chopra AK. **Alteration in the activation state of new inflammation-associated targets by phospholipase A2-activating protein (PLAA).** Cell Signal. 2008 May;20 (5):844-61
- Kliger Y, Levy O, Oren A, Ashkenazy H, Tiran Z, Novik A, Rosenberg A, Amir A, Wool A, Toporik A, Schreiber E, Eshel D, Levine Z, Cohen Y, Nold-Petry C, Dinarello CA, Borukhov I. **Peptides modulating conformational changes in secreted chaperones: from in silico design to preclinical proof of concept.** Proc Natl Acad Sci U S A. 2009 Aug 18;106 (33):13797-801
- Zhang F, Suarez G, Sha J, Sierra JC, Peterson JW, Chopra AK. **Phospholipase A2-activating protein (PLAA) enhances cisplatin-induced apoptosis in HeLa cells.** Cell Signal. 2009 Jul;21 (7):1085-99
- Cheung MC, Vaisar T, Han X, Heinecke JW, Albers JJ. **Phospholipid transfer protein in human plasma associates with proteins linked to immunity and inflammation.** Biochemistry. 2010 Aug 31;49 (34):7314-22

## References

- Morrissey C, Tenniswood M, Moquin A, Hussain M, Lakins J. **An antigen capture assay for the measurement of serum clusterin concentrations.** J Biochem Biophys Methods. 2001 Mar 28;48 (1):13-21

- Koch T, Bodeker H, Stehr SN, Braun P, Fiedler F, Heller AR. **Clusterin protects the lung from leukocyte-induced injury.** Shock. 2003 Aug;20 (2):166-70
- Griswold MD, Collard MW. **Biosynthesis and molecular cloning of sulfated glycoprotein 2 secreted by rat Sertoli cells.** Biochemistry. 1987 Jun 16;26 (12):3297-303
- Harmony JA, Smith WR, Albers HW, Ferguson DG, Ray MJ, Wetterau JR, Duvic CR, Stuart WD, de Silva HV. **A 70-kDa apolipoprotein designated ApoJ is a marker for subclasses of human plasma high density lipoproteins.** J Biol Chem. 1990 Aug 5;265 (22):13240-7
- Harmony JA, Busch SJ, Wetterau JR, Gil CM, Mao SJ, Park YB, Stuart WD, de Silva HV. **Purification and characterization of apolipoprotein J.** J Biol Chem. 1990 Aug 25;265 (24):14292-7
- Bettuzzi S, Franceschi C, Corti A, Monti D, Grassilli E, Ingletti MC, Davalli P, Tropea F, Troiano L. **In vivo accumulation of sulfated glycoprotein 2 mRNA in rat thymocytes upon dexamethasone-induced cell death.** Biochem Biophys Res Commun. 1991 Mar 29;175 (3):810-5
- Harmony JA, deSilva HV, Burkey BF. **Intracellular processing of apolipoprotein J precursor to the mature heterodimer.** J Lipid Res. 1991 Jun;32 (6):1039-48
- Sawczuk IS, O'Toole K, D'Agati V, Olsson CA, Buttyan R, Connor J. **SGP-2 expression as a genetic marker of progressive cellular pathology in experimental hydronephrosis.** Kidney Int. 1991 Jun;39 (6):1098-103
- Fritz IB, Eddy AA. **Localization of clusterin in the epimembranous deposits of passive Heymann nephritis.** Kidney Int. 1991 Feb;39 (2):247-52
- Paller MS, Rosenberg ME. **Differential gene expression in the recovery from ischemic renal injury.** Kidney Int. 1991 Jun;39 (6):1156-61
- Griswold MD, Morales C, Sylvester SR, Oko R. **Localization of sulfated glycoprotein-2 (clusterin) on spermatozoa and in the reproductive tract of the male rat.** Biol Reprod. 1991 Jul;45 (1):195-207
- Gattone VH 2nd, Chadwick LJ, Calvet JP, Harding MA. **The SGP-2 gene is developmentally regulated in the mouse kidney and abnormally expressed in collecting duct cysts in polycystic kidney disease.** Dev Biol. 1991 Aug;146 (2):483-90
- Buttyan R, Leibovitch I. **Sulfated glycoprotein-2 induced endogenous resistance to ischemia and reperfusion injury in the seminiferous tubules.** Am J Reprod Immunol. 1991 Oct;26 (3):114-7
- Corti A, Franceschi C, Ingletti MC, Bettuzzi S, Monti D, Grassilli E. **Studies on the relationship between cell proliferation and cell death: opposite patterns of SGP-2 and ornithine decarboxylase mRNA accumulation in PHA-stimulated human lymphocytes.** Biochem Biophys Res Commun. 1991 Oct 15;180 (1):59-63
- Bardin CW, Reidenberg M, Goldstein M, Li PS, Chen CL, Cheng CY, Schlegel PN, Wu DF, Aulitzky WK. **Measurement of urinary clusterin as an index of nephrotoxicity.** Proc Soc Exp Biol Med. 1992 Jan;199 (1):93-6
- Walker ID, Bozas SE, Kirszbaum L. **SP-40,40, a protein involved in the control of the complement pathway, possesses a unique array of disulphide bridges.** FEBS Lett. 1992 Feb 3;297 (1-2):70-6
- Manenti G, Coni P, Faa G, Ledda-Columbano GM, Columbano A. **Rapid induction of apoptosis in rat liver by cycloheximide.** Am J Pathol. 1992 Mar;140 (3):545-9
- Manivel JC, Hostetter TH, Correa-Rotter R, Rosenberg ME, Eddy AA. **Intrarenal distribution of clusterin following reduction of renal mass.** Kidney Int. 1992 Apr;41 (4):938-50
- Robaire B, Cyr DG. **Regulation of sulfated glycoprotein-2 (clusterin) messenger ribonucleic acid in the rat epididymis.** Endocrinology. 1992 Apr;130 (4):2160-6
- Melner MH, Simard J, Periman LM, Kaynard AH. **Ovarian 3 beta-hydroxysteroid dehydrogenase and sulfated glycoprotein-2 gene expression are differentially regulated by the induction of ovulation, pseudopregnancy, and luteolysis in the immature rat.** Endocrinology. 1992 Apr;130 (4):2192-200
- Buttyan R, Wise GJ, Olsson CA, O'Toole KM, Connor J, Gobe G, Sawczuk IS, Colombel MC, Schumer M. **Morphologic, biochemical, and molecular evidence of apoptosis during the reperfusion phase after brief periods of renal ischemia.** Am J Pathol. 1992 Apr;140 (4):831-8
- Grima J, Stahler M, Toppari J, Cheng CY, Kangasniemi M, Parvinen M, Bardin CW. **Basal and FSH-stimulated steady state levels of SGP-2, alpha 2-macroglobulin, and testibumin in culture media of rat seminiferous tubules at defined stages of the epithelial cycle.** J Androl. 1992 May-Jun;13 (3):208-13
- Hinton BT, Mattmueller DR. **Clusterin (SGP-2) in epididymal luminal fluid and its association with epididymal spermatozoa in androgen-deprived rats.** Mol Reprod Dev. 1992 May;32 (1):73-80
- French LE, Schifferli JA, Tschopp J. **Clusterin in renal tissue: preferential localization with the terminal complement complex and immunoglobulin deposits in glomeruli.** Clin Exp Immunol. 1992 Jun;88 (3):389-93
- Harmony JA, Jenkins SH, Krol B, Stuart WD. **Structure and stability of apolipoprotein J-containing high-density lipoproteins.** Biochemistry. 1992 Sep 15;31 (36):8552-9
- Harmony JA, Stuart WD, Burkey BF. **Hepatic apolipoprotein J is secreted as a lipoprotein.** J Lipid Res. 1992 Oct;33 (10):1517-26

- Takahashi Y, Nakano Y, Choi-Miura NH, Tobe T, Tomita M. **Identification of the disulfide bonds in human plasma protein SP-40,40 (apolipoprotein-J).** J Biochem. 1992 Oct;112 (4):557-61
- Wilson MR, Easterbrook-Smith SB. **Clusterin binds by a multivalent mechanism to the Fc and Fab regions of IgG.** Biochim Biophys Acta. 1992 Oct 20;1159 (3):319-26
- French LE, Tschopp J, Schifferli JA, Sappino AP. **Distinct sites of production and deposition of the putative cell death marker clusterin in the human thymus.** J Clin Invest. 1992 Nov;90 (5):1919-25
- d'Apice AJ, Murphy B, Rogers L, Fisicaro N, O'Bryan M, Pearse MJ. **Differential expression of clusterin in inducible models of apoptosis.** Int Immunol. 1992 Nov;4 (11):1225-31
- et al., Bardin CW, Janne OA, Goldstein M, Saso L, Chen CL, Cheng CY, Aulitzky WK, Cichon Z, Matthews GJ, Schlegel PN. **Clusterin production in the obstructed rabbit kidney: correlations with loss of renal function.** J Am Soc Nephrol. 1992 Nov;3 (5):1163-71
- Nath KA, Hostetter TH, Correa-Rotter R, Rosenberg ME, Manivel JC. **Interaction of complement and clusterin in renal injury.** J Am Soc Nephrol. 1992 Nov;3 (5):1172-9
- Witte DP, Harmony JA, Brown TL, Lund SD, Aronow BJ. **Apolipoprotein J expression at fluid-tissue interfaces: potential role in barrier cytoprotection.** Proc Natl Acad Sci U S A. 1993 Jan 15;90 (2):725-9
- Kanwar YS, Nakamura S, Jin H, Carone FA. **Decreased synthesis and delayed processing of sulfated glycoproteins by cells from human polycystic kidneys.** Lab Invest. 1993 Apr;68 (4):413-8
- Morgenstern H, French L, Preissner KT, Hertig S, Sapino AP, Jenne DE, Tschopp J. **Human megakaryocytes express clusterin and package it without apolipoprotein A-1 into alpha-granules.** Blood. 1993 Jul 1;82 (1):118-25
- Harmony JA, Jenkins SH, Gruppo RA, Clay MA, Stuart WD, Stauderman ML, Aronow BJ, Witte DP. **Platelet activation releases megakaryocyte-synthesized apolipoprotein J, a highly abundant protein in atheromatous lesions.** Am J Pathol. 1993 Sep;143 (3):763-73
- Meri S, Laurila P, Vakeva A. **Co-deposition of clusterin with the complement membrane attack complex in myocardial infarction.** Immunology. 1993 Oct;80 (2):177-82
- Parczyk K, Rachel U, Koch-Brandt C, Pilarsky C. **Gp80 (clusterin; TRPM-2) mRNA level is enhanced in human renal clear cell carcinomas.** J Cancer Res Clin Oncol. 1994;120 (3):186-8
- Jordan-Starck TC, Harmony JA, Furlong CE, Richter RJ, Stuart WD, Kelso GJ. **Apolipoprotein J is associated with paraoxonase in human plasma.** Biochemistry. 1994 Jan 25;33 (3):832-9
- Schifferli JA, French LE, Tschopp J, Wohlwend A, Sappino AP. **Human clusterin gene expression is confined to surviving cells during in vitro programmed cell death.** J Clin Invest. 1994 Feb;93 (2):877-84
- Sells SF, Clayton LR, Swertfeger DK, Stuart WD, Ley CA, Aronow BJ, Witte DP, Lund SD, Jordan-Starck TC, Paigen B, et al.. **Mouse apolipoprotein J: characterization of a gene implicated in atherosclerosis.** J Lipid Res. 1994 Feb;35 (2):194-210
- O'Farrell KA, McRae JL, Aminian A, Saunders JR, Murphy BF, Adam WR. **Clusterin depletion enhances immune glomerular injury in the isolated perfused kidney.** Kidney Int. 1994 Mar;45 (3):817-27
- Correa-Rotter R, Manivel JC, Dvergsten J, Rosenberg ME. **Expression of clusterin in human renal diseases.** Kidney Int. 1994 Mar;45 (3):828-35
- Rao MS, Reddy JK, Yeldandi AV, Ide H. **Increased expression of sulfated glycoprotein-2 and DNA fragmentation in the pancreas of copper-deficient rats.** Toxicol Appl Pharmacol. 1994 May;126 (1):174-7
- French LE, Tschopp J, Schifferli JA, Sappino AP. **Clusterin gene expression in the rat thymus is not modulated by dexamethasone treatment.** Immunology. 1994 Jun;82 (2):328-31
- Thomas-Salgar S, Millis AJ. **Clusterin expression in differentiating smooth muscle cells.** J Biol Chem. 1994 Jul 8;269 (27):17879-85
- Baker HW, Clarke GN, Liu DY, Murphy BF, O'Bryan MK. **The use of anticlusterin monoclonal antibodies for the combined assessment of human sperm morphology and acrosome integrity.** Hum Reprod. 1994 Aug;9 (8):1490-6
- Chen CL, Rosembli N. **Regulators for the rat clusterin gene: DNA methylation and cis-acting regulatory elements.** J Mol Endocrinol. 1994 Aug;13 (1):69-76
- Rosenberg ME, Dvergsten J, Manivel JC, Hostetter TH, Nath KA, Correa-Rotter R. **Induction of clusterin in acute and chronic oxidative renal disease in the rat and its dissociation from cell injury.** Lab Invest. 1994 Aug;71 (2):209-18
- Doerrler WT, Rapp JH, Moser AH, Kunitake ST, Hardardottir I, Grunfeld C, Feingold KR. **Endotoxin and cytokines increase hepatic messenger RNA levels and serum concentrations of apolipoprotein J (clusterin) in Syrian hamsters.** J Clin Invest. 1994 Sep;94 (3):1304-9
- Carone FA, Manivel JC, Rosenberg ME, Kanwar YS. **Genesis of renal cysts is associated with clusterin expression in experimental cystic disease.** J Am Soc Nephrol. 1995 Mar;5 (9):1669-74
- Harmony JA, Mira J, Baker VV, Moulton BC, Brown TL. **Expression of apolipoprotein J in the uterus is associated with tissue remodeling.** Biol Reprod. 1995 May;52 (5):1038-49
- Chung KH, Chevalier RL, Gomez RA. **Regulation of renal growth factors and clusterin by AT1 receptors during neonatal ureteral obstruction.** Am J Physiol. 1995 Jun;268 (6 Pt 2):F1117-23



- Sylvester SR, Buttyan R, Griswold MD, Raffo A, Sutkowski DM, Lee C, Kozlowski JM, Sensibar JA. **Prevention of cell death induced by tumor necrosis factor alpha in LNCaP cells by overexpression of sulfated glycoprotein-2 (clusterin).** *Cancer Res.* 1995 Jun 1;55 (11):2431-7
- Harmony JA, Stefansson S, Loukinova EB, Argraves WS, Kounnas MZ, Strickland DK, Brewer BH. **Identification of glycoprotein 330 as an endocytic receptor for apolipoprotein J/clusterin.** *J Biol Chem.* 1995 Jun 2;270 (22):13070-5
- Silkensen J, Rosenberg ME. **Clusterin: physiologic and pathophysiologic considerations.** *Int J Biochem Cell Biol.* 1995 Jul;27 (7):633-45
- Becker G, Fraenkel MB, Jones C, Hewitson T, Darby IA. **Vascular expression of clusterin in experimental cyclosporine nephrotoxicity.** *Exp Nephrol.* 1995 Jul-Aug;3 (4):234-9
- Flach R, Koch-Brandt C, Cattaruzza M. **Clusterin gene expression in apoptotic MDCK cells is dependent on the apoptosis-inducing stimulus.** *Biochim Biophys Acta.* 1995 Sep 21;1268 (3):325-8
- Baumgartner-Parzer SM, Grillari J, Gessl A, Waldhausl W, Pettermann M, Wagner L. **High-glucose-triggered apoptosis in cultured endothelial cells.** *Diabetes.* 1995 Nov;44 (11):1323-7
- Morgans C, Koch-Brandt C. **Clusterin: a role in cell survival in the face of apoptosis?.** *Prog Mol Subcell Biol.* 1996;16:130-49
- Garred P, Thomsen AC, Hasselqvist P, Hogasen AK, Mollnes TE, Graudal N, Homann C, Hogasen K. **Serum clusterin and vitronectin in alcoholic cirrhosis.** *Liver.* 1996 Apr;16 (2):140-6
- Gobe GC, Harmon BV, Kida Y, Arai T. **Expression and localization of clusterin mRNA in the small and large intestine of the irradiated rat: its relationship with apoptosis.** *Int J Radiat Biol.* 1996 May;69 (5):547-53
- Howe PH, Harmony JA, Karode MC, Jin G, Reddy KB. **Transforming growth factor beta (TGF beta)-induced nuclear localization of apolipoprotein J/clusterin in epithelial cells.** *Biochemistry.* 1996 May 14;35 (19):6157-63
- Chen CL, Feng ZM, Rosemblyt N. **Analysis of the rat clusterin gene promoter and cyclic AMP-regulated mRNA stability in testicular cells.** *J Mol Endocrinol.* 1996 Jun;16 (3):287-96
- Yamamoto M, Kimura K. **Modification of the alternative splicing process of testosterone-repressed prostate message-2 (TRPM-2) gene by protein synthesis inhibitors and heat shock treatment.** *Biochim Biophys Acta.* 1996 Jun 3;1307 (1):83-8
- Argraves WS, Boman J, Wosu UA, Igdoura SA, Morales CR. **Low density lipoprotein receptor-related protein-2 expression in efferent duct and epididymal epithelia: evidence in rats for its in vivo role in endocytosis of apolipoprotein J/clusterin.** *Biol Reprod.* 1996 Sep;55 (3):676-83
- Chung KH, Smith CD, Chevalier RL, Gomez RA, Ficenc M. **Renal apoptosis and clusterin following ureteral obstruction: the role of maturation.** *J Urol.* 1996 Oct;156 (4):1474-9
- Harmony JA, Swertfeger DK, Moulton BC, Witte DP, Brown TL. **Apolipoprotein J/clusterin expression defines distinct stages of blastocyst implantation in the mouse uterus.** *Biol Reprod.* 1996 Oct;55 (4):740-7
- Walker MJ, Baker MS, Partridge SR, Wilson MR. **Clusterin, a putative complement regulator, binds to the cell surface of Staphylococcus aureus clinical isolates.** *Infect Immun.* 1996 Oct;64 (10):4324-9
- Gutacker C, Koch-Brandt C, Diel P, Klock G, Flach R. **Multiple signal transduction pathways regulate clusterin (gp 80) gene expression in MDCK cells.** *J Mol Endocrinol.* 1996 Oct;17 (2):109-19
- Roeth PJ, Easterbrook-Smith SB. **C1q is a nucleotide binding protein and is responsible for the ability of clusterin preparations to promote immune complex formation.** *Biochim Biophys Acta.* 1996 Oct 17;1297 (2):159-66
- Roeth PJ, Easterbrook-Smith SB. **C1q is a nucleotide binding protein and is responsible for the ability of clusterin preparations to promote immune complex formation.** *Biochim Biophys Acta.* 1996 Oct 17;1297 (2):159-66
- Rosenberg ME, Manivel JC, Nath KA, Agarwal A, Silkensen JR. **Temporal induction of clusterin in cisplatin nephrotoxicity.** *J Am Soc Nephrol.* 1997 Feb;8 (2):302-5
- Cardinez CJ, Fonarow GC, Van Lenten BJ, Hama-Levy S, Navab M, La Du BN, Fogelman AM, Lusic AJ, Brennan ML, Castellani LW. **Mildly oxidized LDL induces an increased apolipoprotein J/paraoxonase ratio.** *J Clin Invest.* 1997 Apr 15;99 (8):2005-19
- Laping NJ, Short B, Albrightson CR, Olson BA. **Thrombin increases clusterin mRNA in glomerular epithelial and mesangial cells.** *J Am Soc Nephrol.* 1997 Jun;8 (6):906-14
- McDonald JF, Nelsestuen GL. **Potent inhibition of terminal complement assembly by clusterin: characterization of its impact on C9 polymerization.** *Biochemistry.* 1997 Jun 17;36 (24):7464-73
- Durrington PN, Hunt R, Mackness B, Mackness MI. **Increased immunolocalization of paraoxonase, clusterin, and apolipoprotein A-I in the human artery wall with the progression of atherosclerosis.** *Arterioscler Thromb Vasc Biol.* 1997 Jul;17 (7):1233-8
- Howe PH, Jin G. **Regulation of clusterin gene expression by transforming growth factor beta.** *J Biol Chem.* 1997 Oct 17;272 (42):26620-6

- Crabb JW, Carr SA, West KA, Tenniswood MP, Lakins JN, Hilliard GM, Kapron JT. **Identification and characterization of glycosylation sites in human serum clusterin.** *Protein Sci.* 1997 Oct;6 (10):2120-33
- Baik M, Lee HB, Paik S, Choi Y, Hwang I, Lee M. **EGF inhibits expression of WDNM1 and sulfated glycoprotein-2 genes in mammary epithelial cells.** *Biochem Biophys Res Commun.* 1997 Nov 7;240 (1):104-7
- Yamamoto M, Asami K, Kimura K. **Effect of heat shock treatment on the production of variant testosterone-repressed prostate message-2 (TRPM-2) mRNA in culture cells.** *Cell Biochem Funct.* 1997 Dec;15 (4):251-7
- Brun G, North S, Chatelain G, Michel D. **Stress-induced transcription of the clusterin/apoJ gene.** *Biochem J.* 1997 Nov 15;328 ( Pt 1):45-50
- Wilson MR, Tenniswood MP, Easterbrook-Smith SB, Hochgrebe TT, Humphreys D. **Effects of clusterin overexpression on TNFalpha- and TGFbeta-mediated death of L929 cells.** *Biochemistry.* 1997 Dec 9;36 (49):15233-43
- Vanderheyden I, De Hertogh R, McCracken JE, Pampfer S, Vesela J. **Increased cell death in rat blastocysts exposed to maternal diabetes in utero and to high glucose or tumor necrosis factor-alpha in vitro.** *Development.* 1997 Dec;124 (23):4827-36
- Cruz C, Schwochau G, Ibarra-Rubio ME, Correa-Rotter R, Chmielewski D, Rosenberg ME, Pedraza-Chaverri J, Silkensen JR. **Induction of clusterin in tubules of nephrotic rats.** *J Am Soc Nephrol.* 1998 Jan;9 (1):33-7
- Brooks DP, Ali SM, Short BG, Contino LC, Brickson BM, Day JR, Olson BA, Laping NJ. **The age-related increase in renal clusterin mRNA is accelerated in obese Zucker rats.** *J Am Soc Nephrol.* 1998 Jan;9 (1):38-45
- Jonsson R, Eidsheim M, Legler DW, Cuida M. **Complement regulatory proteins in the salivary glands and saliva of Sjogren's syndrome patients and healthy subjects.** *Clin Exp Rheumatol.* 1997 Nov-Dec;15 (6):615-23
- Rosenberg ME, Muellerleile MR, Manivel JC, Chmielewski D, Lunzer MM, Hirsch AT, Silkensen JR. **Temporal induction of clusterin in the peri-infarct zone after experimental myocardial infarction in the rat.** *J Lab Clin Med.* 1998 Jan;131 (1):28-35
- Izawa M. **Identification of a transcript predicting an alternative form of sulfated glycoprotein-2 (clusterin) in rat tissues.** *Biochem Mol Biol Int.* 1998 Jan;44 (1):9-18
- Izui S, Schifferli JA, Pastore Y, Sappino AP, Menoud PA, French L, Moll S. **Tubular up-regulation of clusterin mRNA in murine lupus-like nephritis.** *Am J Pathol.* 1998 Apr;152 (4):953-62
- De Rooij DG, Themmen AP, Van Pelt AM, Gaemers IC. **Isolation and characterization of all-trans-retinoic acid-responsive genes in the rat testis.** *Mol Reprod Dev.* 1998 May;50 (1):1-6
- Bansal V, Wagner JD, Mattana J, Sharma P, Reddy K, Franki N, Gibbons N, Singhal PC. **Simulated glomerular hypertension promotes mesangial cell apoptosis and expression of cathepsin-B and SGP-2.** *J Investig Med.* 1998 Feb;46 (2):42-50
- Tomita M, Choi-Miura NH, Asuwa N, Masuda S, Komiyama K, Akasaka Y, Ishii T, Ishikawa Y. **Distribution and synthesis of apolipoprotein J in the atherosclerotic aorta.** *Arterioscler Thromb Vasc Biol.* 1998 Apr;18 (4):665-72
- Brown AJ, Dean RT, Jessup W, Easterbrook-Smith SB, Wilson MR, Hochgrebe T, Gelissen IC. **Apolipoprotein J (clusterin) induces cholesterol export from macrophage-foam cells: a potential anti-atherogenic function? .** *Biochem J.* 1998 Apr 1;331 ( Pt 1):231-7
- Rosenberg ME, Nath KA, Schwochau GB. **Clusterin protects against oxidative stress in vitro through aggregative and nonaggregative properties.** *Kidney Int.* 1998 Jun;53 (6):1647-53
- Vollmer G, Schneider MR, Tenniswood MP, Wunsche W. **Estrogenic regulation of clusterin mRNA in normal and malignant endometrial tissue.** *Int J Cancer.* 1998 May 29;76 (5):684-8
- Chevalier RL, Wolstenholme JT, Thornhill BA, Yoo KH. **Tissue-specific regulation of growth factors and clusterin by angiotensin II.** *Am J Hypertens.* 1998 Jun;11 (6 Pt 1):715-22
- Iovanna JL, Dagorn JC, Morisset J, Keim V, Vaccaro MI, Malka D, Fiedler F, Mallo GV, Calvo EL. **Clusterin overexpression in rat pancreas during the acute phase of pancreatitis and pancreatic development.** *Eur J Biochem.* 1998 Jun 1;254 (2):282-9
- Laping NJ, Brooks DP, Contino LC, Ali SM, Olson BA. **Angiotensin-converting enzyme inhibition alters clusterin mRNA expression in the kidney following renal mass reduction.** *Pharmacology.* 1998 Jul;57 (1):13-9
- Jones R, Laslop A, Hurst S, Howes EA. **Cellular distribution and molecular heterogeneity of MAC393 antigen (clusterin, beta-chain) on the surface membrane of bull spermatozoa.** *Mol Hum Reprod.* 1998 Jul;4 (7):673-81
- Kozlowski JM, Lee C, Rademaker A, Sintich S, Lang S, Oyasu R, Steinberg J, Sensibar JA. **Intracellular levels of SGP-2 (Clusterin) correlate with tumor grade in prostate cancer.** *Clin Cancer Res.* 1997 Oct;3 (10):1707-11
- Wilson MR, Carver JA, Easterbrook-Smith SB, Humphreys DT. **Clusterin has chaperone-like activity similar to that of small heat shock proteins.** *J Biol Chem.* 1999 Mar 12;274 (11):6875-81
- French LE, Tschopp J, Schifferli JA, Vechietti JL, Bullani R, Jornot L, Wehrli P, Viard I. **Clusterin gene expression mediates resistance to apoptotic cell death induced by heat shock and oxidative stress.** *J Invest Dermatol.* 1999 Mar;112 (3):290-6
- Neville C, Newkirk MM, Apostolakos P, Fortin PR. **Systemic lupus erythematosus, a disease associated with low levels of clusterin/apoJ, an antiinflammatory protein.**

- J Rheumatol. 1999 Mar;26 (3):597-603
- Klock G, Koch-Brandt C, Rickert J, Gutacker C, Storch S. **Differential regulation of the clusterin gene by Ha-ras and c-myc oncogenes and during apoptosis.** J Cell Physiol. 1998 Dec;177 (4):593-605
  - Sayeed S, Pruden S, Lee C, Kozlowski JM, Steinberg J, Sintich SM, Sensibar JA. **Cytotoxic sensitivity to tumor necrosis factor-alpha in PC3 and LNCaP prostatic cancer cells is regulated by extracellular levels of SGP-2 (clusterin).** Prostate. 1999 May;39 (2):87-93
  - Lakshman R, Hale EA, Ghosh P. **Long-term ethanol exposure alters the sialylation index of plasma apolipoprotein J (Apo J) in rats.** Alcohol Clin Exp Res. 1999 Apr;23 (4):720-5
  - Easterbrook-Smith SB, Hochgrebe TT, Humphreys D, Wilson MR. **A reexamination of the role of clusterin as a complement regulator.** Exp Cell Res. 1999 May 25;249 (1):13-21
  - Min BH, Kang SW, Bendayan M, Che YZ, Park IS. **Up-regulation of clusterin (sulfated glycoprotein-2) in pancreatic islet cells upon streptozotocin injection to rats.** J Endocrinol. 1999 Jul;162 (1):57-65
  - Griswold MD, Bailey R. **Clusterin in the male reproductive system: localization and possible function.** Mol Cell Endocrinol. 1999 May 25;151 (1-2):17-23
  - Herzog V, Brix K, Lemansky P. **Subcellular distribution, secretion, and posttranslational modifications of clusterin in thyrocytes.** Exp Cell Res. 1999 Aug 25;251 (1):147-55
  - Wilce J, Pankhurst GJ, Hochgrebe T, Easterbrook-Smith SB. **pH-dependent changes in the in vitro ligand-binding properties and structure of human clusterin.** Biochemistry. 2000 Feb 15;39 (6):1411-9
  - Yoo KH, Chevalier RL, Thornhill BA. **Angiotensin stimulates TGF-beta1 and clusterin in the hydronephrotic neonatal rat kidney.** Am J Physiol Regul Integr Comp. 2000 Mar;278 (3):R640-5
  - Calabretta B, Sala A, Seignani C, Mancini C, Ventura A, Tanno B, Santilli G, Raschella G, Cervellera M. **Direct transactivation of the anti-apoptotic gene apolipoprotein J (clusterin) by B-MYB.** J Biol Chem. 2000 Jul 14;275 (28):21055-60
  - Min BH, Park IS, Chun BG, Shin KH, Choi SH, Lim SW, Kang SW. **Antisense oligonucleotide of clusterin mRNA induces apoptotic cell death and prevents adhesion of rat ASC-17D Sertoli cells.** Mol Cells. 2000 Apr 30;10 (2):193-8
  - Amato P, Zwain I. **Clusterin protects granulosa cells from apoptotic cell death during follicular atresia.** Exp Cell Res. 2000 May 25;257 (1):101-10
  - Hashimoto T, Chiang YC, Kunimatsu M, Yokoyama H, Lee TH, Hsu LW, Tseng HP, Lai CY, Lord R, Pan TL, Lin YC, Lin CL, Chen CL, Goto S, Chiang KC. **Clusterin may be involved in rat liver allograft tolerance.** Transpl Immunol. 2000 Jun;8 (2):95-9
  - Navab M, Wagner AC, Van Lenten BJ, Fogelman AM. **Oxidized phospholipids induce changes in hepatic paraoxonase and ApoJ but not monocyte chemoattractant protein-1 via interleukin-6.** J Biol Chem. 2001 Jan 19;276 (3):1923-9
  - Harmony JA, Kimball TR, Witte DP, Witt SA, Groen PA, Florio CJ, Stuart WD, Ley-Ebert C, Mistry M, Zhu G, McLaughlin L, Aronow BJ. **Apolipoprotein J/clusterin limits the severity of murine autoimmune myocarditis.** J Clin Invest. 2000 Nov;106 (9):1105-13
  - Crabo BG, Loseth KJ, Gilbert GR, Ibrahim NM. **Correlation between clusterin-positive spermatozoa determined by flow cytometry in bull semen and fertility.** J Androl. 2000 Nov-Dec;21 (6):887-94
  - Wilson MR, Rybchyn MS, Easterbrook-Smith SB, Poon S, Carver JA. **Clusterin is an ATP-independent chaperone with very broad substrate specificity that stabilizes stressed proteins in a folding-competent state.** Biochemistry. 2000 Dec 26;39 (51):15953-60
  - Nangaku M, Fujita T, Kurokawa K, Miyata T, Couser WG, Choi-Miura NH, Nagano N, Okuda T, Hanafusa N, Hori Y, Yamada K. **Clusterin is up-regulated in glomerular mesangial cells in complement-mediated injury.** Kidney Int. 2001 Jan;59 (1):137-46
  - Moulson CL, Rosenberg ME, Luciani M, McCue HM, Millis AJ. **Clusterin regulates vascular smooth muscle cell nodule formation and migration.** J Cell Physiol. 2001 Feb;186 (2):210-9
  - Murphy BF, Atlas-White M, Baker HW. **Localisation of clusterin in normal human sperm by immunogold electron microscopy.** Pathology. 2000 Nov;32 (4):258-61
  - Sawabu N, Su SB, Motoo Y, Xie MJ. **Expression of clusterin in pancreatic acinar cell injuries in vivo and in vitro.** Pancreas. 2001 Mar;22 (2):126-34
  - Klock G, Post A, Baiersdorfer M, Bach UC, Koch-Brandt C, Cattaruzza M. **Apoptotic cell debris and phosphatidylserine-containing lipid vesicles induce apolipoprotein J (clusterin) gene expression in vital fibroblasts.** Exp Cell Res. 2001 Apr 15;265 (1):11-20
  - LoGerfo FW, Stone DH, Sivamurthy N, Quist WC. **Apolipoprotein J inhibits the migration and adhesion of endothelial cells.** Surgery. 2001 Aug;130 (2):204-9
  - Otto HF, Heuschen G, Autschbach F, Gassler N, Obermuller N, Witzgall R. **Expression of clusterin in Crohn's disease of the terminal ileum.** Histol Histopathol. 2001 Jul;16 (3):755-62



- Crabo BG, Romano JE, Troedsson MH, Ibrahim NM. **Effect of scrotal insulation on clusterin-positive cells in ram semen and their relationship to semen quality.** J Androl. 2001 Sep-Oct;22 (5):863-77
- Tei C, Matsuyama T, Matsushita N, Obata H, Kihara T, Orihara K, Kaieda H, Eto H, Biro S, Miyata M. **Apolipoprotein J/clusterin is induced in vascular smooth muscle cells after vascular injury.** Circulation. 2001 Sep 18;104 (12):1407-12
- Griswold MD, Garner EC, Brown CJ, Dunker AK, Bailey RW. **Clusterin, a binding protein with a molten globule-like region.** Biochemistry. 2001 Oct 2;40 (39):11828-40
- Tenniswood MP, Lakins JN, Carver JA, Easterbrook-Smith SB, Poon S, Wilson MR. **Evidence that clusterin has discrete chaperone and ligand binding sites.** Biochemistry. 2002 Jan 8;41 (1):282-91
- Park IS, Min BH, Shin YJ, Han YM, Kim BM. **Clusterin expression during regeneration of pancreatic islet cells in streptozotocin-induced diabetic rats.** Diabetologia. 2001 Dec;44 (12):2192-202
- Lakshman MR, Hale EA, Ghosh P. **Plasma sialic-acid index of apolipoprotein J (SIJ): a new alcohol intake marker.** Alcohol. 2001 Nov;25 (3):173-9
- Lark MW, Gowen M, Murdock PR, Mui P, O'Brien SP, Mooney J, Sathe G, Kumar S, Connor JR. **Clusterin expression in adult human normal and osteoarthritic articular cartilage.** Osteoarthritis Cartilage. 2001 Nov;9 (8):727-37
- Harmony JA, Bissler JJ, Zhu G, Witte DP, Barrie A 3rd, Chmielewski D, Finkel D, Girton R, Rosenberg ME, Aronow BJ. **Apolipoprotein J/clusterin prevents a progressive glomerulopathy of aging.** Mol Cell Biol. 2002 Mar;22 (6):1893-902
- Girton RA, Rosenberg ME, Sundin DP. **Clusterin protects renal tubular epithelial cells from gentamicin-mediated cytotoxicity.** Am J Physiol Renal Physiol. 2002 Apr;282 (4):F703-9
- Koch-Brandt C, Dumont P, Remacle J, Chainiaux F, Petropoulou C, Eliaers F, Gonos ES, Toussaint O. **Overexpression of apolipoprotein J in human fibroblasts protects against cytotoxicity and premature senescence induced by ethanol and tert-butylhydroperoxide.** Cell Stress Chaperones. 2002 Jan;7 (1):23-35
- Carver JA, Treweek TM, Wilson MR, Easterbrook-Smith SB, Poon S. **Clusterin is an extracellular chaperone that specifically interacts with slowly aggregating proteins on their off-folding pathway.** FEBS Lett. 2002 Feb 27;513 (2-3):259-66
- Pankhurst GJ, Poon S, Carver JA, Easterbrook-Smith SB, Rybchyn MS, Wilson MR. **Mildly acidic pH activates the extracellular molecular chaperone clusterin.** J Biol Chem. 2002 Oct 18;277 (42):39532-40
- Witzgall R, Gretz N, Kranzlin B, Hidaka S. **Urinary clusterin levels in the rat correlate with the severity of tubular damage and may help to differentiate between glomerular and tubular injuries.** Cell Tissue Res. 2002 Dec;310 (3):289-96
- Stathatos M, Chalikia A, Poulakou M, Trougakos IP, Gonos ES, Melidonis A. **Serum levels of the senescence biomarker clusterin/apolipoprotein J increase significantly in diabetes type II and during development of coronary heart disease or at myocardial infarction.** Exp Gerontol. 2002 Oct-Nov;37 (10-11):1175-87
- Boothman DA, Kinsella TJ, Li J, Klokov DY, Leskov KS. **Synthesis and functional analyses of nuclear clusterin, a cell death protein.** J Biol Chem. 2003 Mar 28;278 (13):11590-600
- You KH, Na SY, Kang MH, Park YK, Lee KB, Ju SK, Park JS, Park JH. **Clusterin mRNA expression in apoptotic and activated rat thymocytes.** Cell Res. 2003 Feb;13 (1):49-58
- You KH, Na SY, Kang MH, Park YK, Lee KB, Ju SK, Park JS, Park JH. **Clusterin mRNA expression in apoptotic and activated rat thymocytes.** Cell Res. 2003 Feb;13 (1):49-58
- Bajari TM, Nimpf J, Schneider WJ, Strasser V. **A model for modulation of leptin activity by association with clusterin.** FASEB J. 2003 Aug;17 (11):1505-7
- Seiki M, Yana I, Akizawa T, Koshikawa N, Itoh Y, Matsuda A. **Clusterin, an abundant serum factor, is a possible negative regulator of MT6-MMP/MMP-25 produced by neutrophils.** J Biol Chem. 2003 Sep 19;278 (38):36350-7
- Mikhailidis DP, Keen JN, Bouloux PM, MacColl GS, Byrne DJ, Ramesh BS, Tan TM, Skinner VO, Beaumont NJ, Vanderpump MP, Srai KS, Bruckdorfer KR. **Ghrelin can bind to a species of high density lipoprotein associated with paraoxonase.** J Biol Chem. 2003 Mar 14;278 (11):8877-80
- Park IS, Bendayan M, Kang SW, Lee SH, Kim BM, Min BH. **Clusterin expression in the early process of pancreas regeneration in the pancreatectomized rat.** J Histochem Cytochem. 2003 Oct;51 (10):1355-65
- Wang CS, Yang RC, Chen SL, Yen CC, Shih CH, Lee HY, Lin KH. **Plasma protein regulation by thyroid hormone.** J Endocrinol. 2003 Dec;179 (3):367-77
- Arinami T, Yoshikawa H, Yamakawa-Kobayashi K, Yamada N, Sohda S, Hamada H, Watanabe H. **Proteome analysis reveals elevated serum levels of clusterin in patients with preeclampsia.** Proteomics. 2004 Feb;4 (2):537-43
- Bacci ML, Tamanini C, Zannoni A, Forni M. **Opposite regulation of clusterin and LH receptor in the swine corpus luteum during luteolysis.** Reprod Nutr Dev. 2003 Nov-Dec;43 (6):517-25
- Spagnoli LG, Ferlosio A, Pichiorri F, Ciucci A, Pucci S, Orlandi A. **Modulation of clusterin isoforms is associated with all-trans retinoic acid-induced proliferative arrest and apoptosis of intimal smooth muscle cells.** Arterioscler Thromb Vasc Biol. 2005 Feb;25 (2):348-53



- Kawano Y, Sasaguri T, Miyata T, Banno M, Tanaka C, Horio T, Yoshii M, Kamide K, Takiuchi S, Miwa Y. **Insertion/deletion polymorphism in clusterin gene influences serum lipid levels and carotid intima-media thickness in hypertensive Japanese females.** *Biochem Biophys Res Commun.* 2005 Jun 17;331 (4):1587-93
- Shan K, Yuan Z, Chen M. **Association of apolipoprotein J gene 866C->T polymorphism with preeclampsia and essential hypertension.** *Gynecol Obstet Invest.* 2005;60 (3):133-8
- Garber DW, Bachini E, Hama S, Hough G, Wagner AC, Van Lenten BJ, Reddy ST, Anantharamaiah GM, Navab M, Palgunachari MN, Fogelman AM, Mishra VK. **An oral apoJ peptide renders HDL antiinflammatory in mice and monkeys and dramatically reduces atherosclerosis in apolipoprotein E-null mice.** *Arterioscler Thromb Vasc Biol.* 2005 Sep;25 (9):1932-7
- Hack CE, Meijer CJ, Musters RJ, Visser CA, Muller A, Manoe R, Cillessen SA, Krijnen PA, Niessen HW, Aarden LA. **Clusterin: a protective mediator for ischemic cardiomyocytes?** *Am J Physiol Heart Circ Physiol.* 2005 Nov;289 (5):H2193-202
- Suzuki KT, Furuhashi K, Jindo T, Matsubayashi K, Tominaga Y, Tsuchiya Y. **Investigation on urinary proteins and renal mRNA expression in canine renal papillary necrosis induced by nefiracetam.** *Arch Toxicol.* 2005 Sep;79 (9):500-7
- Wang CY, Taichman R, Xu Z, Edwards CA, Kim JK, Zhang H. **Clusterin inhibits apoptosis by interacting with activated Bax.** *Nat Cell Biol.* 2005 Sep;7 (9):909-15
- Park IS, Bendayan M, Min BH, Shin YJ, Lee S, Kim SY, Kim BM. **Clusterin induces differentiation of pancreatic duct cells into insulin-secreting cells.** *Diabetologia.* 2006 Feb;49 (2):311-20
- Blennow K, Fredman P, Andreasen N, Nagga K, Davidsson P, Nilsseld AM. **Clusterin in cerebrospinal fluid: analysis of carbohydrates and quantification of native and glycosylated forms.** *Neurochem Int.* 2006 Jun;48 (8):718-28
- Lejeune H, Durand P, Sanchez P, Plotton I. **Decrease of both stem cell factor and clusterin mRNA levels in testicular biopsies of azoospermic patients with constitutive or idiopathic but not acquired spermatogenic failure.** *Hum Reprod.* 2006 Sep;21 (9):2340-5
- Fabbri LM, Mutti A, Davalli P, Panico F, Astancolle S, Cagliero A, Vettori MV, Ruggieri MP, Caporali A, D'Arca D, Luppi F, Carnevali S, Corti A. **Clusterin decreases oxidative stress in lung fibroblasts exposed to cigarette smoke.** *Am J Respir Crit Care Med.* 2006 Aug 15;174 (4):393-9
- . .
- Fiala RR, Stejskal D. **Evaluation of serum and urine clusterin as a potential tumor marker for urinary bladder cancer.** *Neoplasma.* 2006;53 (4):343-6
- Moore TL, Chauhan AK. **Presence of plasma complement regulatory proteins clusterin (Apo J) and vitronectin (S40) on circulating immune complexes (CIC).** *Clin Exp Immunol.* 2006 Sep;145 (3):398-406
- Fournier C, Breban M, Dougados M, Saraux A, Lequerre T, Le Nen D, Anract P, Migaud H, Margottin-Goguet F, Mistou S, Tourneur L, Germain S, De Pinieux G, Essabani A, Devauchelle V, Chiochia G. **Characterization and functional consequences of underexpression of clusterin in rheumatoid arthritis.** *J Immunol.* 2006 Nov 1;177 (9):6471-9
- Egashira T, Miller NE, Miller IP, Maruyama T, Tsushima M, Saito S, Fujioka T, Sasaguri Y, Iwasaki T, Tsuji M, Ishii J, Ueno T, Ishihara M, Miwa Y, Hattori H, Kujiraoka T. **Serum apolipoprotein j in health, coronary heart disease and type 2 diabetes mellitus.** *J Atheroscler Thromb.* 2006 Dec;13 (6):314-22
- Bodeker H, Horn F, Keim V, Mossner J, Kloppel G, Sack U, Gaiser S, Selig L, Reiser U, Gantzer H, Savkovic V. **Clusterin is protective in pancreatitis through anti-apoptotic and anti-inflammatory properties.** *Biochem Biophys Res Commun.* 2007 May 4;356 (2):431-7
- Geng YJ, Shelat H, Wassler M, Sagar MB, Li Y. **Apolipoprotein-J prevention of fetal cardiac myoblast apoptosis induced by ethanol.** *Biochem Biophys Res Commun.* 2007 May 25;357 (1):157-61
- Michel D, Wilson MR, Le Goff P, Watrin T, Le Drean Y, Tetley S, Nizard P. **Stress-induced retrotranslocation of clusterin/ApoJ into the cytosol.** *Traffic.* 2007 May;8 (5):554-65
- Nakamura A, Sakai Y, Ishii A. **Molecular pathological evaluation of clusterin in a rat model of unilateral ureteral obstruction as a possible biomarker of nephrotoxicity.** *Toxicol Pathol.* 2007;35 (3):376-82
- Nam SY, Yun YW, Lee BJ, Choo YK, Nahm SS, Lee JE, Baek IJ, Jin Y, Lee SR, Cho YK, Kwak DH, Yon JM. **Expression pattern of sulfated glycoprotein-2 (SGP-2) mRNA in rat testes exposed to endocrine disruptors.** *J Reprod Dev.* 2007 Oct;53 (5):1007-13
- Andersen CL, Orntoft TF, Christensen LL, Mansilla F, Schepeler T. **Clusterin expression can be modulated by changes in TCF1-mediated Wnt signaling.** *J Mol Signal.* 2007;2:6
- Ikuta K, Anantapreecha S, Chaichana P, Yamate M, Kurosu T. **Secreted complement regulatory protein clusterin interacts with dengue virus nonstructural protein 1.** *Biochem Biophys Res Commun.* 2007 Nov 3;362 (4):1051-6
- Min BH, Kim KW, Kim JH, Yu YS, Kim JH. **The role of clusterin in in vitro ischemia of human retinal endothelial cells.** *Curr Eye Res.* 2007 Jul-Aug;32 (7-8):693-8
- Zatloukal K, Denk H, Buchner J, Khaskhely NM, Wolf P, Unterthor D, Braun N, Aigelsreiter A, Haslbeck M, Janig E. **Clusterin associates with altered elastic fibers in human photoaged skin and prevents elastin from ultraviolet-induced aggregation in vitro.**

- Am J Pathol. 2007 Nov;171 (5):1474-82
- Quigg RJ, Hayashi M, Jacob A, Cunningham PN, Puri TS, Minto AW, Takase O. **Inhibition of NF-kappaB-dependent Bcl-xL expression by clusterin promotes albumin-induced tubular cell apoptosis.** Kidney Int. 2008 Mar;73 (5):567-77
  - You KH, Yu K, Kwon OY, Choi I, Jeon JH, Lee KB. **Clusterin, a novel modulator of TGF-beta signaling, is involved in Smad2/3 stability.** Biochem Biophys Res Commun. 2008 Feb 22;366 (4):905-9
  - Mueller PW, Camp DG 2nd, Monroe ME, Polpitiya AD, Moore RJ, Gritsenko MA, Jacobs JM, Qian WJ, Metz TO, Smith RD. **Application of proteomics in the discovery of candidate protein biomarkers in a diabetes autoantibody standardization program sample subset.** J Proteome Res. 2008 Feb;7 (2):698-707
  - Closset JL, Ammar H. **Clusterin activates survival through the phosphatidylinositol 3-kinase/Akt pathway.** J Biol Chem. 2008 May 9;283 (19):12851-61
  - Hintzen RQ, Luider TM, Sillevius Smitt PA, Titulaer MK, Burgers PC, Dekker LJ, Stoop MP. **Multiple sclerosis-related proteins identified in cerebrospinal fluid by advanced mass spectrometry.** Proteomics. 2008 Apr;8 (8):1576-85
  - Duguid JR, Liu NG, Tourtellotte WW, Bohmont CW. **Changes in brain gene expression shared by scrapie and Alzheimer disease.** Proc Natl Acad Sci U S A. 1989 Sep;86 (18):7260-4
  - Finch CE, Pasinetti GM. **Sulfated glycoprotein-2 (SGP-2) mRNA is expressed in rat striatal astrocytes following ibotenic acid lesions.** Neurosci Lett. 1991 Sep 2;130 (1):1-4
  - Neal MJ, Yeats DA, Meerabux JM, Jones SE. **Analysis of differentially expressed genes in retinitis pigmentosa retinas. Altered expression of clusterin mRNA.** FEBS Lett. 1992 Apr 6;300 (3):279-82
  - Quirion R, Danik M, Moysse E, Chabot JG, Michel D. **Possible functions of a new genetic marker in central nervous system: the sulfated glycoprotein-2 (SGP-2).** Synapse. 1992 Jun;11 (2):105-11
  - Clemens JA, Stephenson D, Smalstig B, Robison P, Fuson K, May PC. **Sulfated glycoprotein-2 expression increases in rodent brain after transient global ischemia.** Brain Res Mol Brain Res. 1992 Sep;15 (1-2):33-9
  - Sakuragi N, Tanaka S, Xiong Y, Hassan MK, Ohta Y, Watari H. **Clusterin expression predicts survival of invasive cervical cancer patients treated with radical hysterectomy and systematic lymphadenectomy.** Gynecol Oncol. 2008 Mar;108 (3):527-32
  - Morell M, Hortas ML, Gleave ME, Serrano A, Garcia-Aranda M, Roldan MJ, Tellez T, Redondo M. **Anticlustarin treatment of breast cancer cells increases the sensitivities of chemotherapy and tamoxifen and counteracts the inhibitory action of dexamethasone on chemotherapy-induced cytotoxicity.** Breast Cancer Res. 2007;9 (6):R86
  - Gleave ME, Fujisawa M, Hara I, Miyake H. **The potential of clusterin inhibiting antisense oligodeoxynucleotide therapy for prostate cancer.** Expert Opin Investig Drugs. 2006 May;15 (5):507-17

<b>HEADQUARTERS:</b>				
BioVendor Laboratorní medicína, a.s.	Karasek 1767/1	621 00 Brno CZECH REPUBLIC	Phone: +420-549-124-185 Fax: +420-549-211-460	E-mail: info@biovendor.com Web: www.biovendor.com
<b>EUROPEAN UNION:</b>				
BioVendor GmbH	Im Neuenheimer Feld 583	D-69120 Heidelberg GERMANY	Phone: +49-6221-433-9100 Fax: +49-6221-433-9111	E-mail: infoEU@biovendor.com
<b>USA, CANADA AND MEXICO:</b>				
BioVendor LLC	1463 Sand Hill Road Suite 227	Candler, NC 28715 USA	Phone: +1-828-670-7807 +1-800-404-7807 Fax: +1-828-670-7809	E-mail: infoUSA@biovendor.com
<b>CHINA - Hong Kong Office:</b>				
BioVendor Laboratories Ltd	Room 4008 Hong Kong Plaza, No.188	Connaught Road West Hong Kong, CHINA	Phone: +852-2803-0523 Fax: +852-2803-0525	E-mail: infoHK@biovendor.com
<b>CHINA - Mainland Office:</b>				
BioVendor Laboratories Ltd	Room 2917, 29/F R & F Ying Feng Plaza No.2 Huaqiang road	Pearl River New Town Guang Zhou, CHINA	Phone: +86-20-38065519 Fax: +86-20-38065529	E-mail: infoCN@biovendor.com