

### Goat Anti-Clusterin / APOJ Antibody

Peptide-affinity purified goat antibody Catalog # AF1256a

### **Specification**

### Goat Anti-Clusterin / APOJ Antibody - Product Information

Application WB
Primary Accession P10909

Other Accession NP 976084, 1191

Reactivity
Predicted
Host
Clonality
Concentration

Human
Dog
Goat
Polyclonal
100ug/200ul

Isotype IgG Calculated MW 52495

Goat Anti-Clusterin / APOJ Antibody - Additional Information

### **Gene ID 1191**

### **Other Names**

Clusterin, Aging-associated gene 4 protein, Apolipoprotein J, Apo-J, Complement cytolysis inhibitor, CLI, Complement-associated protein SP-40, 40, Ku70-binding protein 1, NA1/NA2, Testosterone-repressed prostate message 2, TRPM-2, Clusterin beta chain, ApoJalpha, Complement cytolysis inhibitor a chain, Clusterin alpha chain, ApoJbeta, Complement cytolysis inhibitor b chain, CLU, APOJ, CLI, KUB1

### **Format**

0.5 mg lgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

### Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

### **Precautions**

Goat Anti-Clusterin / APOJ Antibody is for research use only and not for use in



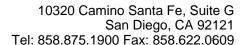
AF1256a (0.3  $\mu$ g/ml) staining of human colon lysate (35  $\mu$ g protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

# Goat Anti-Clusterin / APOJ Antibody - Background

The protein encoded by this gene appears to be involved in several basic biological events such as cell death, tumor progression, and neurodegenerative disorders. However, the function of this protein is unknown. Three transcript variants encoding different isoforms have been found for this gene, and one of them is secreted and processed into a mature form.

# Goat Anti-Clusterin / APOJ Antibody - References

Genetic variations in the CLU and PICALM genes are associated with cognitive function in the oldest old. Mengel-From J, et al. Neurobiol Aging, 2010 Aug 23. PMID 20739100.
Association Analysis Between the rs11136000 Single Nucleotide Polymorphism in Clusterin Gene, rs3851179 Single Nucleotide





diagnostic or therapeutic procedures.

Goat Anti-Clusterin / APOJ Antibody - Protein Information

### Name CLU (HGNC:2095)

#### **Function**

[Isoform 1]: Functions as extracellular chaperone that prevents aggregation of non native proteins (PubMed:<a href="http://www.uniprot.org/citations/11123922" target="\_blank">11123922</a>, PubMed:<a href="http://www.uniprot.org/citations/19535339"

target="\_blank">19535339</a>). Prevents stress-induced aggregation of blood plasma proteins (PubMed:<a href="http://www.uniprot.org/citations/11123922"

target="\_blank">11123922</a>,

PubMed:<a href="http://www.uniprot.org/ci tations/12176985"

target="\_blank">12176985</a>,

PubMed:<a href="http://www.uniprot.org/ci tations/17260971"

target=" blank">17260971</a>,

PubMed:<a href="http://www.uniprot.org/ci tations/19996109"

target="\_blank">19996109</a>). Inhibits formation of amyloid fibrils by APP, APOC2, B2M, CALCA, CSN3, SNCA and

aggregation-prone LYZ variants (in vitro) (PubMed:<a href="http://www.uniprot.org/c itations/12047389"

target=" blank">12047389</a>,

PubMed: <a href="http://www.uniprot.org/ci tations/17412999"

target="\_blank">17412999</a>,

PubMed:<a href="http://www.uniprot.org/ci tations/17407782"

target="\_blank">17407782</a>). Does not require ATP (PubMed:<a href="http://www.uniprot.org/citations/11123922"

target=" blank">11123922</a>).

Maintains partially unfolded proteins in a state appropriate for subsequent refolding by other chaperones, such as HSPA8/HSC70 (PubMed:<a href="http://www.uniprot.org/citations/11123922"

target="\_blank">11123922</a>). Does not refold proteins by itself (PubMed:<a href="http://www.uniprot.org/citations/11123922" target="\_blank">11123922</a>). Binding to cell surface receptors triggers internalization of the chaperone-client complex and subsequent lysosomal or

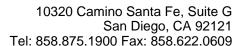
Polymorphism in Clathrin Assembly Lymphoid Myeloid Protein Gene and the Patients with Schizophrenia in the Chinese Population. Zhou Y, et al. DNA Cell Biol, 2010 Aug 25. PMID 20738160. Meta-analysis Confirms CR1, CLU, and PICALM as Alzheimer Disease Risk Loci and Reveals Interactions With APOE Genotypes. Jun G, et al. Arch Neurol, 2010 Sep 3. PMID 20697030. Implication of CLU gene polymorphisms in Chinese patients with Alzheimer's disease. Yu JT, et al. Clin Chim Acta, 2010 Oct 9. PMID 20599866. Association of CLU and PICALM variants with Alzheimer's disease. Kamboh MI, et al. Neurobiol Aging, 2010 Jun 4. PMID 20570404.



proteasomal degradation (PubMed: <a href ="http://www.uniprot.org/citations/2150579 2" target=" blank">21505792</a>). Protects cells against apoptosis and against cytolysis by complement (PubMed:<a href= "http://www.uniprot.org/citations/2780565" target=" blank">2780565</a>). Intracellular forms interact with ubiquitin and SCF (SKP1-CUL1-F-box protein) E3 ubiquitin-protein ligase complexes and promote the ubiquitination and subsequent proteasomal degradation of target proteins (PubMed:<a href="http://www.uniprot.org/c itations/20068069" target=" blank">20068069</a>). Promotes proteasomal degradation of COMMD1 and IKBKB (PubMed:<a href="http ://www.uniprot.org/citations/20068069" target=" blank">20068069</a>). Modulates NF-kappa-B transcriptional activity (PubMed: <a href="http://www.unipr ot.org/citations/12882985" target=" blank">12882985</a>). A mitochondrial form suppresses BAXdependent release of cytochrome c into the cytoplasm and inhibit apoptosis (PubMed:<a href="http://www.uniprot.org/c itations/16113678" target="\_blank">16113678</a>, PubMed:<a href="http://www.uniprot.org/ci tations/17689225" target=" blank">17689225</a>). Plays a role in the regulation of cell proliferation (PubMed:<a href="http://www.uniprot.org/c itations/19137541" target=" blank">19137541</a>). An intracellular form suppresses stress-induced apoptosis by stabilizing mitochondrial membrane integrity through interaction with HSPA5 (PubMed: <a href="http://www. uniprot.org/citations/22689054" target=" blank">22689054</a>). Secreted form does not affect caspase or BAX-mediated intrinsic apoptosis and TNF-induced NF-kappa-B-activity (PubMed:<a href="http://www.uniprot.org/c itations/24073260" target=" blank">24073260</a>). Secreted form act as an important modulator during neuronal differentiation through interaction with STMN3 (By similarity). Plays a role in the clearance of immune complexes that arise during cell injury (By similarity).

### **Cellular Location**

[Isoform 1]: Secreted. Note=Can retrotranslocate from the secretory





compartments to the cytosol upon cellular stress. [Isoform 6]: Cytoplasm. Note=Keeps cytoplasmic localization in stressed and unstressed cell.

### **Tissue Location**

Detected in blood plasma, cerebrospinal fluid, milk, seminal plasma and colon mucosa. Detected in the germinal center of colon lymphoid nodules and in colon parasympathetic ganglia of the Auerbach plexus (at protein level). Ubiquitous. Detected in brain, testis, ovary, liver and pancreas, and at lower levels in kidney, heart, spleen and lung.

## Goat Anti-Clusterin / APOJ Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- <u>Immunofluorescence</u>
- Immunoprecipitation
- Flow Cytomety
- Cell Culture