

## Product datasheet

# Recombinant Human Clusterin alpha chain protein ab151899

### Description

<b>Product name</b>	Recombinant Human Clusterin alpha chain protein	
<b>Purity</b>	> 95 % SDS-PAGE. Purity is greater than 95% as determined by SEC-HPLC and reducing SDS-PAGE.	
<b>Endotoxin level</b>	< 0.100 Eu/μg	
<b>Expression system</b>	HEK 293 cells	
<b>Accession</b>	<a href="#">P10909</a>	
<b>Protein length</b>	Full length protein	
<b>Animal free</b>	No	
<b>Nature</b>	Recombinant	
<b>Species</b>	Human	
<b>Sequence</b>	<p>DQTVSDNELQEMSNQGSKYVNKEIQNAVNGVKQIKTLIEK TNEERKTLLS NLEEAKKKKEDALNETRESETKLKELPGVCNETMMALWE ECKPCLKQTCM KFYARVCRSGSGLVGRQLEEFLNQSSPFYFWMNGDRIDS LLENDRQQTHM LDVMQDHFSRASSIIDELFQDRFFTREPQDTHYLPFSLPH RRPHFFFPK SRIVRSLMPFSPYEPLNFHAMFQPFLEMIHEAQQAMDIHF HSPAFQHPPT EFIREGDDDRTVCREIRHNSTGCLRMKDQCDKCREILSVD CSTNNPSQAK LRREDES LQVAERLTRKYNELLKSYQWKMLNTSSLLEQL NEQFNWVSRL ANLTQGEDQYYLRVTTVASHTSDSDVPSGVTEVVVKLFD SDPITVTPVE VSRKNPKFMETVAEKALQEYRKKHREEVDHHHHHH</p>	
<b>Predicted molecular weight</b>	51 kDa including tags	
<b>Amino acids</b>	23 to 449	
<b>Tags</b>	His tag C-Terminus	

### Specifications

Our [Abpromise guarantee](#) covers the use of **ab151899** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<b>Applications</b>	SDS-PAGE HPLC
<b>Form</b>	Lyophilized

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## Preparation and Storage

**Stability and Storage** Shipped at 4°C. The lyophilized protein is stable for a few weeks at room temperature. Store at -20°C long term.

pH: 7.40

Constituents: 99% Phosphate Buffer, 0.88% Sodium chloride

**Reconstitution** Always centrifuge tubes before opening. Do not mix by vortex or pipetting. Dissolve the lyophilized protein in 1X PBS. It is not recommended to reconstitute to a concentration less than 100 µg/ml. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. For long term storage aliquot and store at < -20°C.

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## General Info

**Function** Isoform 1 functions as extracellular chaperone that prevents aggregation of nonnative proteins. Prevents stress-induced aggregation of blood plasma proteins. Inhibits formation of amyloid fibrils by APP, APOC2, B2M, CALCA, CSN3, SNCA and aggregation-prone LYZ variants (in vitro). Does not require ATP. Maintains partially unfolded proteins in a state appropriate for subsequent refolding by other chaperones, such as HSPA8/HSC70. Does not refold proteins by itself. Binding to cell surface receptors triggers internalization of the chaperone-client complex and subsequent lysosomal or proteasomal degradation. Secreted isoform 1 protects cells against apoptosis and against cytolysis by complement. Intracellular isoforms 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. Promotes proteasomal degradation of COMMD1 and IKBKB. Modulates NF-kappa-B transcriptional activity. Nuclear isoforms promote apoptosis. Mitochondrial isoforms suppress BAX-dependent release of cytochrome c into the cytoplasm and inhibit apoptosis. Plays a role in the regulation of cell proliferation.

**Tissue specificity** 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.

**Sequence similarities** Belongs to the clusterin family.

**Post-translational modifications** Isoform 1 is proteolytically cleaved on its way through the secretory system, probably within the Golgi lumen.

Polyubiquitinated, leading to proteasomal degradation.

Heavily N-glycosylated. About 30% of the protein mass is comprised of complex N-linked carbohydrate.

**Cellular localization** Nucleus. Cytoplasm. Mitochondrion membrane. Cytoplasm > cytosol. Microsome. Endoplasmic reticulum. Cytoplasmic vesicle > secretory vesicle > chromaffin granule. Isoforms lacking the N-terminal signal sequence have been shown to be cytoplasmic and/or nuclear. Secreted isoforms can retrotranslocate from the secretory compartments to the cytosol upon cellular stress. Detected

in perinuclear foci that may be aggresomes containing misfolded, ubiquitinated proteins. Detected at the mitochondrion membrane upon induction of apoptosis and Secreted. Can retrotranslocate from the secretory compartments to the cytosol upon cellular stress.

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**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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