10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-Clusterin Antibody
Catalog # ABO12261

Specification

Anti-Clusterin Antibody - Product Information

Application	**WB, IHC**
Primary Accession	P10909
Host	**Rabbit**
Reactivity	**Human**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Clusterin(CLU) detection. Tested with WB, IHC-P, ELISA in Human.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Clusterin 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

Calculated MW
52495 MW KDa

Application Details
ELISA , 0.1-0.5 µg/ml, Human, -
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat
Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization
Isoform 1: Secreted. Can retrotranslocate from the secretory compartments to the cytosol upon cellular stress.

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. .

Protein Name
Clusterin

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
E. coli-derived human Apolipoprotein J recombinant protein (Position: S228-E449). Human Apolipoprotein J shares 76.1 % and 75.2 % amino acid (aa) sequence identity with mouse and rat Apolipoprotein J, respectively.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage	**At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

Sequence Similarities
Belongs to the clusterin family.

Anti-Clusterin Antibody - Protein Information

Name CLU (HGNC:2095)

Function
[Isoform 1]: Functions as extracellular chaperone that prevents aggregation of non native proteins (PubMed:11123922, PubMed:19535339). Prevents stress-induced aggregation of blood plasma proteins (PubMed:11123922, PubMed:12176985, PubMed:17260971, PubMed:19996109). Inhibits formation of amyloid fibrils by APP, APOC2, B2M, CALCA, CSN3, SNCA and aggregation-prone LYZ variants (in vitro) (PubMed:12047389, PubMed:17407782, PubMed:17412999). Does not require ATP (PubMed:11123922). Maintains partially unfolded proteins in a state appropriate for subsequent refolding by other chaperones, such as HSPA8/HSC70 (PubMed:11123922). Does not refold proteins by itself (PubMed:11123922). Binding to cell surface receptors triggers internalization of the chaperone-client complex and subsequent lysosomal or proteasomal degradation (PubMed:21505792). Protects cells against apoptosis and against cytolysis by complement (PubMed:2780565). 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:20068069). Promotes proteasomal degradation of COMMD1 and IKBKB (PubMed:20068069).

Modulates NF-kappa-B transcriptional activity (PubMed:12882985). A mitochondrial form suppresses BAX- dependent release of cytochrome c into the cytoplasm and inhibit apoptosis (PubMed:16113678, PubMed:17689225). Plays a role in the regulation of cell proliferation (PubMed:19137541). An intracellular form suppresses stress-induced apoptosis by stabilizing mitochondrial membrane integrity through interaction with HSPA5 (PubMed:22689054). Secreted form does not affect caspase or BAX-mediated intrinsic apoptosis and TNF-induced NF-kappa-B-activity (PubMed:24073260). 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.

Anti-Clusterin Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Clusterin Antibody - Images

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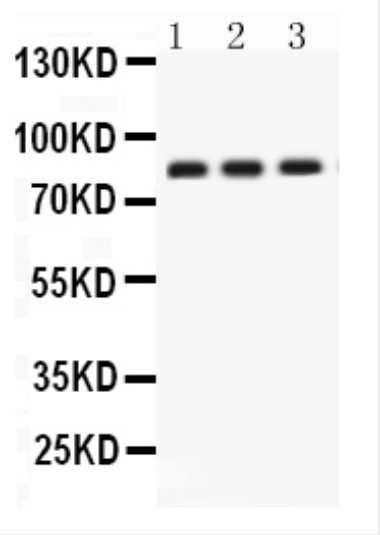
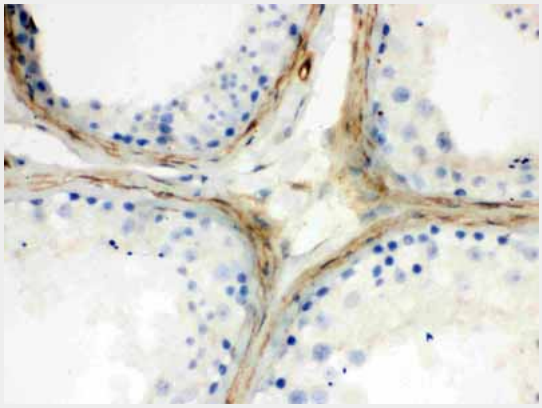


Anti- Apolipoprotein J Picoband antibody, ABO12261, Western blottingAll lanes: Anti Apolipoprotein J (ABO12261) at 0.5ug/mlLane 1: SKOV Whole Cell Lysate at 40ugLane 2: U87 Whole Cell Lysate at 40ugLane 3: PANC Whole Cell Lysate at 40ugPredicted bind size: 52KDObserved bind size: 82KD



Anti- Apolipoprotein J Picoband antibody, ABO12261, IHC(P)IHC(P): Human Testis Tissue

Anti-Clusterin Antibody - Background

Clusterin (apolipoprotein J) is a 75 - 80 kDa disulfide-linked heterodimeric protein associated with the clearance of cellular debris and apoptosis. In humans, clusterin is encoded by the CLU gene. This protein has several synonyms: dimeric acidic glycoprotein (DAG protein), testosterone repressed prostate message-2 (TRPM-2), sulfated glycoprotein-2 (SGP-2) and complement lysis inhibitor (CLI). Clusterin was mapped to mouse chromosome 14. Clusterin is a ubiquitously expressed molecule thought to influence a variety of processes including cell death. In the brain, it accumulates in dying neurons following seizures and hypoxic-ischemic (H-I) injury. clusterin may be a new therapeutic target to modulate non-caspase-dependent neuronal death following acute brain injury.