

ApoJ/Clusterin Antibody (NT)
Rabbit Polyclonal Antibody
Catalog # ABV11308**Specification**

ApoJ/Clusterin Antibody (NT) - Product Information

Application	FC, IHC, WB
Primary Accession	P10909
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG

ApoJ/Clusterin Antibody (NT) - Additional Information**Gene ID** 1191

Positive Control	Western blot: A549 cell lysate, IHC: Human brain tissue, FACS: A549 cells.
Application & Usage	Western blot: ~1:1000, IHC: ~1:50-1:100, FACS: ~1:10-1:50.

Other Names

TRPM-2, Apolipoprotein J, APO-J, CLI, CLU, SGP-2, AAG4, KUB1, SGP2, SP-40, TRPM2, MGC24903.

Target/Specificity

Clusterin

Antibody Form

Liquid

Appearance

Colorless liquid

Formulation

100 µl of antibody in PBS with 0.09% (W/V) sodium azide

Handling

The antibody solution should be gently mixed before use.

Reconstitution & Storage

-20 °C

Background Descriptions**Precautions**

ApoJ/Clusterin Antibody (NT) is for research use only and not for use in diagnostic or therapeutic procedures.

ApoJ/Clusterin Antibody (NT) - 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:17412999, PubMed:17407782). 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,

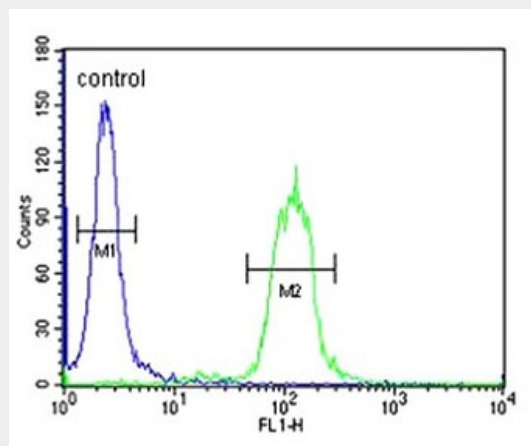
and at lower levels in kidney, heart, spleen and lung.

ApoJ/Clusterin Antibody (NT) - Protocols

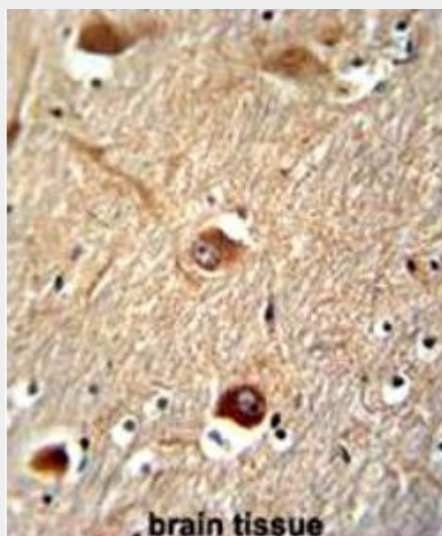
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

ApoJ/Clusterin Antibody (NT) - Images

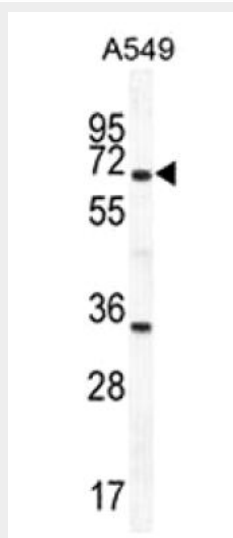


CLU Antibody flow cytometric analysis of A549 cells (right histogram) compared to a negative control cell (left histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



Formalin-fixed and paraffin-embedded human brain tissue reacted with CLU antibody, which was

peroxidase-conjugated to the secondary antibody, followed by DAB staining.



Western blot analysis of A549 cell lysate (35 µg protein).

ApoJ/Clusterin Antibody (NT) - Background

Native Apolipoprotein J (ApoJ), also named Clusterin, is a heavily glycosylated, 75-80 kDa disulfide-linked heterodimeric protein. Despite being cloned since 1989, no genuine function has been attributed to ApoJ so far. The protein has been reportedly implicated in several diverse physiological processes such as sperm maturation, lipid transportation, complement inhibition, tissue remodeling, membrane recycling, cell-cell and cell-substratum interactions, stabilization of stressed proteins in a folding-competent state and promotion or inhibition of apoptosis. ApoJ gene is differentially regulated by cytokines, growth factors and stress-inducing agents. Clusterin is up- or down regulated 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.