

Recombinant Human CLU, C13&N15-labeled

Cat. No. CLU-223H **Lot. No.** (See product label)

SPECIFICATION

Product Overview Recombinant Human CLUS /Clusterin MS Standard Protein, C13 and N15-labeled (CLUS / Clusterin, Heavy Labeled) Asp23 - Glu449 (Accession # NP_001822.3) was produced in human 293 cells (HEK293).

Species Human

Source HEK293

ProteinLength 23-449 a.a.

Description Clusterin (CLU) also known as dimeric acidic glycoprotein (DAG protein), testosterone repressed prostate message-2 (TRPM-2), sulfated glycoprotein-2 (SGP-2) and complement lysis inhibitor (CLI), is a secreted multifunctional glycoprotein protein which belongs to the clusterin family. Intracellular cleavages of the precursor of clusterin remove the signal peptide and generate comparably sized α and β chains which are secreted as an 80 kDa N-glycosylated disulfide-linked heterodimer. DAG protein is predominantly expressed in adult testis, ovary, adrenal gland, liver, heart, and brain and in many epithelial tissues during embryonic development. Clusterin involve in several basic biological events such as cell death, tumor progression, and neurodegenerative disorders. Upregulation of clusterin mRNA and protein levels detected in diverse disease states and in in vitro systems have led to suggestions that it functions in membrane lipid recycling, in apoptotic cell death, and as a stress-induced secreted chaperone protein, amongst others.

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Form	Lyophilized from 0.22 µm filtered solution in PBS, pH7.4. Normally Mannitol or Trehalose are added as protectants before lyophilization.
Molecular Mass	CLUS / Clusterin, Heavy Labeled, fused with 6xHis tag at the C-terminus, has a calculated MW of 50.9 kDa (Disulfide – linked heterodimer). The predicted N-terminus is Ser228 (alpha chain) and Asp23 (beta chain) . DTT-reduced Protein migrates as 40 kDa and
Endotoxin	Less than 1.0 EU per µg of the CLUS / Clusterin, Heavy Labeled by the LAL method.
Purity	>92% as determined by SDS-PAGE.
Storage	Avoid repeated freeze-thaw cycles.No activity loss was observed after storage at:In lyophilized state for 1 year (4oC-8oC); After reconstitution under sterile conditions for 1 month (4oC-8oC) or 3 months (-20oC to -70oC).

GENE INFORMATION

Gene Name	CLU clusterin [Homo sapiens]
Official Symbol	CLU
Synonyms	CLU; clusterin; APOJ, CLI, clusterin (complement lysis inhibitor, SP 40,40, sulfated glycoprotein 2, testosterone repressed prostate message 2, apolipoprotein J); apolipoprotein J; complement lysis inhibitor; KUB1; SGP 2; SP 40; sulfated glycoprotein 2; testosterone repressed prostate message 2; TRPM 2; ku70-binding protein 1; aging-associated protein 4; complement cytolysis inhibitor; complement-associated protein SP-40,40; testosterone-repressed prostate message 2; CLI; AAG4; APOJ; SGP2; APO-J; SGP-2; SP-40; TRPM2; TRPM-2; NA1/NA2; MGC24903;

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Gene ID	1191
mRNA Refseq	NM_001831
Protein Refseq	NP_001822
MIM	185430
UniProt ID	P10909
Chromosome Location	8p21-p12
Pathway	Hemostasis, organism-specific biosystem; Platelet activation, signaling and aggregation, organism-specific biosystem; Platelet degranulation, organism-specific biosystem; Response to elevated platelet cytosolic Ca ²⁺ , organism-specific biosystem; Validated targets of C-MYC transcriptional repression, organism-specific biosystem;
Function	NOT ATPase activity; misfolded protein binding; misfolded protein binding; protein binding; ubiquitin protein ligase binding;

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