9051 Mira Mesa Blvd, #910094
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Clusterin Human, His

Apolipoprotein-J Human Recombinant, His Tag
CYK0113

Product Overview

Name	Clusterin Human, His
Description	
Apolipoprotein-J Human Recombinant, His Tag	
Accession (Primary)	P10909
Synonyms	
CLI, AAG4, APOJ, KUB1, SGP2, SGP-2, SP-40, TRPM2, TRPM-2, MGC24903, Clusterin, ging-associated gene 4 protein, Apolipoprotein J,Complement cytolysis inhibitor, Complement-associated protein SP-40,40, Ku70-binding protein 1, NA1/NA2, Testosterone-repressed prostate message 2, CLU.	
Introduction	
Clusterin also named Apolipoprotein J (APO-J) is a 75-80 kD disulfide-linked heterodimeric protein containing about 30% of N-linked carbohydrate rich in sialic acid but truncated forms targeted to the nucleus have also been identified. The precursor polypeptide chain is cleaved proteolytically to remove the 22-mer secretory signal peptide and subsequently between residues 227/228 to generate the a and b chains. These are assembled in anti-parallel to give a heterodimeric molecule in which the cysteine-rich centers are linked by five disulfide bridges and are flanked by two predicted coiled-coil a-helices and three predicted amphipathic a-helices. Across a broad range of species clusterin shows a high degree of sequence homology ranging from 70% to 80%. It is nearly ubiquitously expressed in most mammalian tissues and can be found in plasma, milk, urine, cerebrospinal fluid and semen. It is able to bind and form complexes with numerous partners such as immunoglobulins, lipids, heparin, bacteria, complement components, paraoxonase, beta amyloid, leptin and others. Clusterin has been ascribed a plethora of functions such as phagocyte recruitment, aggregation induction, complement attack prevention, apoptosis inhibition, membrane remodeling, lipid transport, hormone transport and/or scavenging, matrix metalloproteinase inhibition. A genuine function of clusterin has not been defined. One tempting hypothesis says that clusterin is an extracellular chaperone protecting cells from stress induced insults caused by degraded and misfolded protein precipitates. 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.	
Source	
Escherichia Coli.	

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Physical Appearance

Sterile filtered colorless solution.

Formulation

Clusterin protein solution (0.5mg/ml) contains 20mM Tris-HCl buffer (pH 8.0), 0.15M NaCl, 10% glycerol and 1mM DTT.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Purity

Greater than 85% as determined by SDS-PAGE.

Amino acid sequence

MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGS DQTV SDNELQEMSN QGSKYVNKEI QNAVNGVKQI KTLIEKTNEE RKTLLSNLEE AKKKKEDALN ETRESETKLK ELPGVCNETM MALWEECKPC LKQTCMKFYA RVCRSGSGLV GRQLEEFLNQ SSPFYFWMNG DRIDSLLEND RQQTHMLDVM QDHFSRASSI IDELFQDRFF TREPQDTYHY LPFSLPHRRP HFFFPKSRIV RSLMPFSPYE PLNFHAMFQP FLEMIHEAQQ AMDIHFHSPA FQHPPTEFIR EGDDDRTVCR EIRHNSTGCL RMKDQCDKCR EILSVDCSTN NPSQAKLRRE LDESLQVAER LTRKYNELLK SYQWKMLNTS SLLEQLNEQF NWVSRLANLT QGEDQYYLRV TTVASHTSDS DVPSGVTEVV VKLFDSDPIT VTVPVEVSRK NPKFMETVAE KALQEYRKKH REE.

Precautions

Clusterin Human, His is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (P10909)