9051 Mira Mesa Blvd, #910094
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Clusterin Canine

Clusterin Canine Recombinant
CYK0110

Product Overview

Name	Clusterin Canine
Description	
Clusterin Canine Recombinant	
Accession (Primary)	P25473
Synonyms	
CLI, AAG4, KUB1, SGP2, SGP-2, SP-40, TRPM2, MGC24903, Glycoprotein 80, Gp80, CLU, Clusterin, Apolipoprotein J, Apo-J.	
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.	
Physical Appearance	

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Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

Canine Clusterin was lyophilized from PBS, pH 7.5.

Stability

Store lyophilized protein at -20°C. Aliquot the product after reconstitution to avoid repeated freezing/thawing cycles.

Reconstituted protein can be stored at 4°C for a limited period of time; it does not show any change after two weeks at 4°C.

Purity

Greater than 95% as determined by SDS PAGE.

Amino acid sequence

MKHHHHHHAS DQAVSDTELQ EMSTEGSKYI NKEIKNALKG VKQIKTLIEQ TNEERKSLLS NLEEAKKKKE DALNDTKDSE TKLKASQGVC NDTMMALWEE CKPCLKQTCM KFYARVCRSG SGLVGHQLEE FLNQSSPFYF WMNGDRIDSL LENDRQQTHA LDVMQDSFNR ASSIMDELFQ DRFFTREPQD TYHYSPFSLF QRRPFFNPKF RIARNIIPFP RFQPLNFHDM FQPFFDMIHQ AQQAMDVNLH RIPYHFPIEF PEEDNRTVCK EIRHNSTGCL KMKDQCEKCQ EILSVDCSSN NPAQVQLRQE LSNSLQIAEK FTKLYDELLQ SYQEKMFNTS SLLKQLNEQF SWVSQLANLT QSEDPFYLQV TTVGSQTSDS NVPVGFTKVV VKLFDSDPIT VMIPEAVSRN NPKFMETVAE KALQEYRQKHREE.

Solubility

Add deionized H2O to a working volume of 0.5mg/ml and let the lyophilized pellet dissolve completely.

Precautions

Clusterin Canine is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (P25473)