Data Sheet (Cat.No.TMPY-06908)

TargetMol

Clusterin Protein, Human, Recombinant (sCLU, His)

General Information

Synonyms:	KUB1;SP-40;TRPM-2;SGP2;CLI;TRPM2;APOJ;NA1/NA2;CLU1;AAG4;CLU2;APO-J;clusterin;SGP-2
Protein Construction:	A DNA sequence encoding the Human CLU (NP_001822.3) (Met1-Glu449) was expressed with a polyhistidine tag at the C-terminus. Predicted N terminal: Asp 23
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P10909
Molecular Weight:	51.51 kDa (predicted); 33.5 kDa (reducing conditions)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	≥ 95 % as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Clusterin, also known as complement-associated protein SP-40, Complement cytolysis inhibitor, Apolipoprotein J, Testosterone-repressed prostate message 2, Aging-associated gene 4 protein, CLU and APOJ, is a secreted protein which belongs to the clusterin family. Clusterin/Apolipoprotein J/Apo-J is an enigmatic glycoprotein with a nearly ubiquitous tissue distribution and an apparent involvement in biological processes ranging from mammary gland involution to neurodegeneration in Alzheimer's disease. Its major form, a heterodimer, is secreted and present in

physiological fluids, but truncated forms targeted to the nucleus have also been identified. Clusterin/Apolipoprotein J/Apo-J is a widely distributed glycoprotein with a wide range of biologic properties. A prominent and defining feature of clusterin is its marked induction in such disease states as glomerulonephritis, cystic renal disease, renal tubular injury, neurodegenerative conditions, atherosclerosis, and myocardial infarction. 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.

Reference

Silkensen JR,et al.(1994) The role of clusterin in tissue injury. Biochem Cell Biol. 72(11-12):483-8.
Naik RR,et al.(2002) Biomimetic synthesis and patterning of silver nanoparticles. Nat Mater. 1(3): 169-72.
Djeu JY,et al.(2009) Clusterin and chemoresistance. Adv Cancer Res. 105: 77-92.