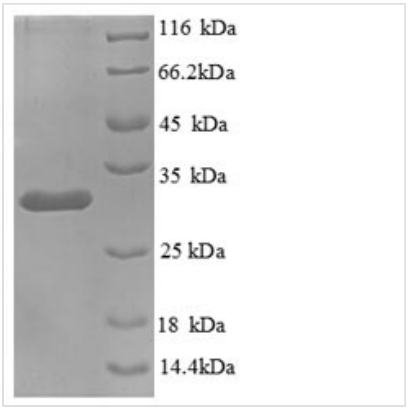
Recombinant Human Kininogen-1 (KNG1), partial

Product Code	CSB-EP012479HU
Relevance	1 Kininogens are inhibitors of thiol proteases; (2) HMW-kininogen plays an important role in blood coagulation by helping to position optimally prekallikrein and factor XI next to factor XII; (3) HMW-kininogen inhibits the thrombin- and plasmin-induced aggregation of thrombocytes; (4) the active peptide bradykinin that is released from HMW-kininogen shows a variety of physiological effects: (4A) influence in smooth muscle contraction, (4B) induction of hypotension, (4C) natriuresis and diuresis, (4D) decrease in blood glucose level, (4E) it is a mediator of inflammation and causes (4E1) increase in vascular permeability, (4E2) stimulation of nociceptors (4E3) release of other mediators of inflammation (e.g. prostaglandins), (4F) it has a cardioprotective effect (directly via bradykinin action, indirectly via endothelium-derived relaxing factor action); (5) LMW-kininogen inhibits the aggregation of thrombocytes; (6) LMW-kininogen is in contrast to HMW-kininogen not involved in blood clotting.
Abbreviation	Recombinant Human KNG1 protein, partial
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P01042
Alias	Alpha-2-thiol proteinase inhibitorFitzgerald factorHigh molecular weight kininogen ;HMWKWilliams-Fitzgerald-Flaujeac factor
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	SSRIGEIKEETTVSPPHTSMAPAQDEERDSGKEQGHTRRHDWGHEKQRKHNL GHGHKHERDQGHGHQRGHGLGHGHEQQHGLGHGHKFKLDDDLEHQGGHV LDHGHKHKHGHGHGKHKNKGKKNGKHNGWKTEHLASSSEDSTTPSAQTQE KTEGPTPIPSLAKPGVTVTFSDFQDSDLIATMMPPISPAPIQSDDDWIPDIQIDP NGLSFNPISDFPDTTSPKCPGRPWKSVSEINPTTQMKESYYFDL
Research Area	Cardiovascular
Source	E.coli
Target Names	KNG1
Protein Names	Alpha-2-thiol proteinase inhibitorFitzgerald factorHigh molecular weight kininogen ;HMWKWilliams-Fitzgerald-Flaujeac factor
Expression Region	390-639aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-tagged

Mol. Weight	31.8 kDa
Protein Length	Partial

Image



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

In e.coli cells, the generation of recombinant Human KNG1 protein involves cloning a DNA fragment encoding the Human KNG1 protein (390-639aa) into a plasmid vector, which is then transferred into the e.coli cells. Positive cells are selected, cultured, and induced to express the KNG1 protein. A N-terminal 6xHis tag is attached to the protein. Lysis of the cells allows for the harvest of the recombinant Human KNG1 protein. The collected recombiant Human KNG1 protein is subjected to affinity purification and is identified using SDS-PAGE and subsequent staining of the gel with Coomassie Brilliant Blue. Its purity is greater than 90%.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.
Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.