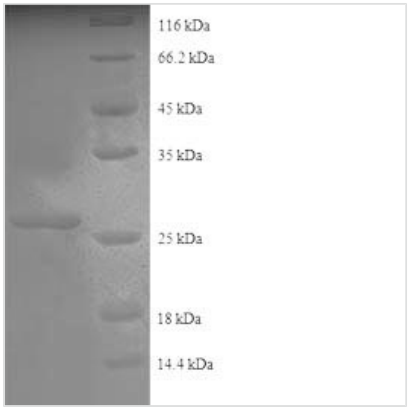
Recombinant Human Collagen alpha-2 (IV) chain (COL4A2), partial

Product Code	CSB-EP005742HU
Relevance	Type IV collagen is the major structural component of glomerular basent mbranes (GBM), forming a 'chicken-wire' meshwork together with laminins, proteoglycans and entactin/nidogen.Canstatin, a cleavage product corresponding to the collagen alpha 2(IV) NC1 domain, possesses both anti-angiogenic and anti-tumor cell activity. It inhibits proliferation and migration of endothelial cells, reduces mitochondrial mbrane potential, and induces apoptosis. Specifically induces Fas-dependent apoptosis and activates procaspase-8 and -9 activity. Ligand for alphavbeta3 and alphavbeta5 integrins.
Abbreviation	Recombinant Human COL4A2 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.	P08572
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	VKHSQTDQEPMCPVGMNKLWSGYSLLYFEGQEKAHNQDLGLAGSCLARFSTMPFLYCNPGDVCYYASRNDKSYWLSTTAPLPMMPVAEDEIKPYISRCSVCEAPAIAIAVHSQDVSIPHCPAGWRSLWIGYSFLMHTAAGDEGGGQSLVSPGSCLEDFRATPFIECNGGRGTCHYYANKYSFWLTTIPEQSFQGSPSADTLKAGLIRTHISRCQVCMKNL
Research Area	Cancer
Source	E.coli
Target Names	COL4A2
Expression Region	1493-1712aa
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	28.3kDa
Protein Length	Partial
Image	



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

Description

The recombinant Human COL4A2 was expressed with the amino acid range of 1493-1712. This COL4A2 protein is theoretically predicted to have a molecular weight of 28.3 kDa. This COL4A2 protein is produced using e.coli expression system. The COL4A2 gene fragment has been modified by fusing the N-terminal 6xHis tag, providing convenience in detecting and purifying the recombinant COL4A2 protein during the following stages.

The human collagen alpha-2 (IV) chain, encoded by the COL4A2 gene, is a vital component of type IV collagen, a major structural protein found in basement membranes. COL4A2 is essential for maintaining the structural integrity of tissues and organs, especially in the vascular system and basement membranes of various organs. Mutations in COL4A2 can lead to Alport syndrome, a hereditary disorder affecting the kidneys, eyes, and ears. Research on COL4A2 encompasses understanding its role in basement membrane function, tissue development, and its association with various pathological conditions. Investigating COL4A2 provides insights into extracellular matrix biology and has implications for potential therapeutic strategies targeting collagen-related disorders.

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

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