# Recombinant CO8A1 protein (His tag)

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| **Catalog Number** | 539879 |
| **Synonyms** | VIII; Endothelial collagen |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | P27658 |
| **Molecular Weight** | Predictes a molecular mass of 16.33 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 16 kDa band. |

## Product Information

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| **Sequence Region** | 614-744 |
| **Form** | Lyophilized powder |
| **Formulation** | Lyophilized from sterile PBS, pH 7.4 |
| **Purity** | >85%, by SDS-PAGE with Coomassie Brilliant Blue staining. |
| **Endotoxin** | Not tested. |
| **Activity** | Not tested. |
| **Stability** | Samples are stable for up to twelve months from date of receipt at -70℃ |
| **Protein Construction** | DNA encoding 614-744 aa (P27658) were fused with 6His tag. |

## Storage & Handling

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| **Reconstitution** | Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. |
| **Storage** | Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. |
| **Shipping** | In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature.<br>Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise. |

## Description

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| **Description** | Recombinant Human Collagen alpha-1(VIII) chain fragment (residues 614-744) is a highly stable and soluble protein unit derived from the full-length endothelial collagen. This fragment, corresponding to a region of the protein that excludes the vastatin domain, is ideal for structural studies, biochemical assays, and investigating collagen-mediated extracellular matrix functions without inducing cell proliferation effects.<br>The full-length Collagen alpha-1(VIII) chain, encoded by the COL8A1 gene, is a key macromolecular component of subendothelial tissues, prominently found in the Descemet's membrane of corneal endothelial cells and blood vessel endothelia. It plays a critical role in maintaining vascular wall integrity and structure, supporting the migration and proliferation of vascular smooth muscle cells, which is significant in processes like atherogenesis. The protein is secreted and localizes to the extracellular space, extracellular matrix, and basement membrane. Notably, its cleaved C-terminal fragment, vastatin, inhibits aortic endothelial cell proliferation and promotes apoptosis, underscoring the protein's regulatory functions in vascular biology. |