Recombinant COL12 protein (His tag)

Catalog Number	545138
Synonyms	Collectin placenta protein 1; CL-P1; hCL-P1; Nurse cell scavenger receptor 2; Scavenger receptor class A member 4; Scavenger receptor with C-type lectin
Species	Human
Expression System	E. coli
Accession	Q5KU26
Molecular Weight	Predictes a molecular mass of 17.71 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 20 kDa band.

Product Information

Sequence Region	606-742
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 606-742 aa (Q5KU26) were fused with 6His tag.

Storage & Handling

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. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Collectin-12 (COLEC12) Fragment (606-742) is a high-purity protein designed for studying the C-type lectin domain's role in host defense mechanisms. This fragment enables targeted investigation of carbohydrate binding, bacterial recognition, and scavenger receptor functions in a simplified experimental system. Collectin-12, also known as CL-P1 or scavenger receptor class A member 4, is a membrane-bound scavenger receptor crucial for host defense in humans. It functions as a pattern recognition receptor that promotes binding and phagocytosis of various pathogens including Gram-positive and Gram-negative bacteria and yeast. The protein mediates recognition and degradation of oxidatively modified low-density lipoprotein (oxLDL) by vascular endothelial cells and demonstrates calcium-dependent carbohydrate binding specificity for Gal-type ligands, fucose, GalNAc, T/Tn antigens, sialyl Lewis X, and asialo-orosomucoid. Located as a single-pass type II membrane protein that forms clusters on the cell surface, Collectin-12 may also contribute to amyloid-beta clearance in Alzheimer's disease, highlighting its multifaceted role in immune surveillance and cellular homeostasis.