

# Rat CLP1 / COLEC12 Protein (His Tag)



Sino Biological  
Biological Solution Specialist

Catalog Number: 80394-R07B

## General Information

### Gene Name Synonym:

COLEC12

### Protein Construction:

A DNA sequence encoding the mature form of rat COLEC12 (Q4V885) (Ala101-Leu742) was expressed, with a polyhistidine tag at the N-terminus.

**Source:** Rat

**Expression Host:** Baculovirus-Insect Cells

## QC Testing

**Purity:** > 99 % as determined by SDS-PAGE

### Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

**Predicted N terminal:** His

### Molecular Mass:

The recombinant ratCOLEC12 consists of 658 amino acids and predicts a molecular mass of 72.4 KDa. It migrates as an approximately 90 KDa band in SDS-PAGE under reducing conditions.

### Formulation:

Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 8.0

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Storage:

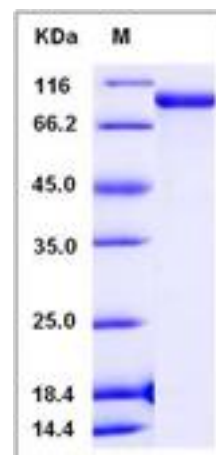
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

CLP1, also known as COLEC12, is a scavenger receptor that displays several functions associated with host defense. It contains 1 C-type lectin domain and 3 collagen-like domains. CLP1 is strongly expressed in placenta and moderately expressed in heart, skeletal muscle, small intestine and lung. It promotes binding and phagocytosis of Gram-positive, Gram-negative bacteria and yeast. CLP1 mediates the recognition, internalization and degradation of oxidatively modified low density lipoprotein (oxLDL) by vascular endothelial cells. It binds to several carbohydrates including Gal-type ligands, D-galactose, L- and D-fucose, GalNAc, T and Tn antigens in a calcium-dependent manner and internalizes specifically GalNAc in nurse-like cells. It binds also to sialyl Lewis X or a trisaccharide and asialo-orosomucoid (ASOR). CLP1 may also play a role in the clearance of amyloid beta in Alzheimer disease.

## References

1. Ramirez A, *et al.* (2008) Human RNA 5'-kinase (hClp1) can function as a tRNA splicing enzyme in vivo. *RNA*. 14(9):1737-45.
2. Danielsen JM, *et al.* (2011) Mass spectrometric analysis of lysine ubiquitylation reveals promiscuity at site level. *Mol Cell Proteomics*. 10(3):M110.003590.
3. Kim W, *et al.* (2011) Systematic and quantitative assessment of the ubiquitin-modified proteome. *Mol Cell*. 44(2):325-40.

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