

Anti-Collectin-12 / CL-P1 antibody, mouse monoclonal (53)

72-041 100 µg

Shipping and Storage: Ship at 4°C and store at -20°C. Do not freeze

Specific Reactivity: Reacts with human, mouse, rat and hamster

Immunogen: Recombinant human collectin-12 (amino acids 590 to 742) corresponding to the carbohydrate recognition domain (CRD) expressed in *Escherichia coli*.

Applications:

1. Western blot (1/500~1/1,000)
2. Immunofluorescence staining (1/500)
3. ELISA (assay dependent)

Background: Collectins are characterized by a collagen-like sequence and a carbohydrate recognition domain (CRD) and are members of the vertebrate C-type lectin superfamily. Collectins play an important role in the innate immune system. The collectin-12 (Collectin Placenta 1;CL-P1) is detected in placenta and umbilical vein, and expressed in vascular endothelial cells in human. CL-P1 has an open reading frame of 2226 base pairs encoding 742 amino acids. CL-P1 has an approximate molecular mass of 140 kDa in CL-P1-cDNA-transfected CHO (Chinese hamster ovary) cells and placental membrane extracts.

Isotype: mouse IgG1

Product: 1.0 mg/ml in PBS, 50% glycerol, filter sterilized.

Purity: IgG, affinity-purified with Protein A

Data Link: UniProKB [Q5KU26](#) (COL12_HUMAN)

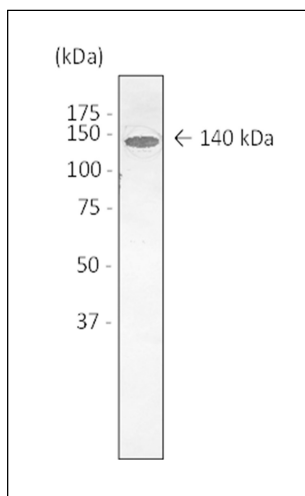


Fig.1. Identification of protein CL-P1 by Western blotting
Supernatant of CHO cells expressing human recombinant CL-P1 (1 µg/ml) was separated on SDS-PAGE. The monoclonal antibody was used at 1/500 dilution. The CL-P1 protein migrates at 140 kDa position.

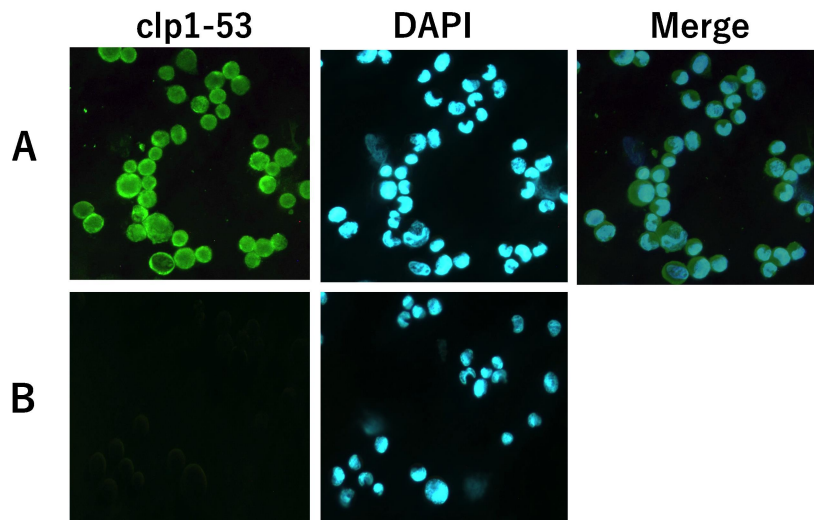


Fig.2. Detection of CL-P1 protein transfected in CHO cells by immunofluorescence staining

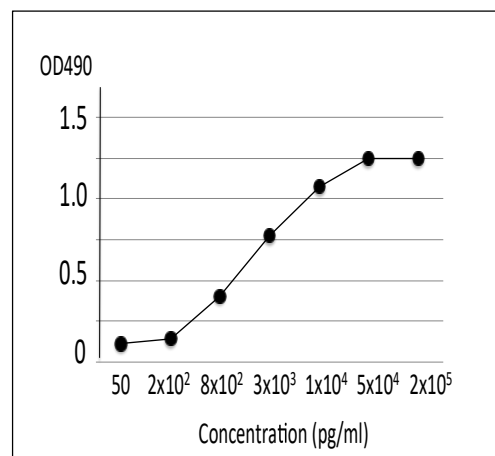
A: CHO cells expressing human recombinant CL-P1.

B: CHO cells (mock infected cells).

The antibody was used at 1/500 dilution. The FITC-conjugate rabbit anti-mouse IgG (x4000) was added. Nucleus (DNA) was stained with DAPI.

Fig.3. Titration of recombinant CL-P1 protein transfected in CHO cells by indirect ELISA using monoclonal antibody (53).

The indicated amounts of recombinant CL-P1 protein expressed in CHO cells was coated onto the wells of the ELISA plate. After blocking with 5% skim milk, monoclonal antibody at the 1/1000 dilution was added to the each well. HRP-conjugate goat anti-mouse IgG (100 μ l, x4000 dilution) was added. As substrate, orthophenylenediamine was used. Optical density (OD) measured at 490nm.



Related product:

72-040 Anti-Collectin 11 / CL-K1 antibody , mouse monoclonal (821)

References: This antibody was used and cited in the following publications.

- Ohtani K. et al. The membrane-type collectin CL-P1 is a scavenger receptor on vascular endothelial cells. [J Biol Chem](#). 2001 Nov 23;276(47):44222-8. PMID : [11564734](#) WB, IF, ELISA: human

2. Koide T et al. Specific recognition of the collagen triple helix by chaperone HSP47. II. The HSP47-binding structural motif in collagens and related proteins. [J Biol Chem](#). 2006 Apr 21;281(16):11177-85. PMID: [16484215](#). **WB: human**
3. Jang S. et al. Scavenger receptor collectin placenta 1 (CL-P1) predominantly mediates zymosan phagocytosis by human vascular endothelial cells. [J Biol Chem](#). 2009 Feb 6;284(6):3956-65 PMID: [19073604](#) **WB, IF: human**
4. Koyama S et al. The induction of human CL-P1 expression in hypoxia/reoxygenation culture condition and rat CL-P1 after ischemic/reperfusion treatment. [Biochim Biophys Acta](#). 2011 Sep;1810(9):836-42. PMID: [21723916](#). **WB:human**
5. Jang S et al. Scavenger receptor CL-P1 mediates endocytosis by associating with AP-2 μ 2. [Biochim Biophys Acta](#). 2014 Nov;1840(11):3226-37. PMID: [25109811](#). **WB, IF: human**