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

Product code	72-041
Size	100 µg
Storage	-20℃
Concentration	1.0 mg/ml
Buffer	PBS- with 50% glycerol
Purity	Purified IgG fraction with protein A from hybridoma cell culture medium.
Immunogen	Recombinant human collectin-12 (amino acids 590 to 742) corresponding to the carbohydrate recognition domain (CRD) expressed in *Escherichia coli*.
Isotype	mouse IgG1κ
Reactivity	Human, mouse, rat and chinese hamster
Special notes	N/A
Application	1. Western blot (1/500~1/1,000) 2. Immunofluorescent 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.
Data Link	UniProKB Q5KU26 (COL12_HUMAN)

Please note: All products are FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES. NOT FOR MILITARY USE.

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Data Images: 72-041 Anti-Collectin-12 / CL-P1 antibody, mouse monoclonal (53)

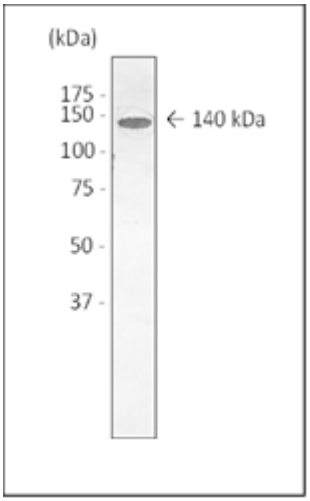

Fig.1. Identification of protein CL-P1 by Western blotting

Supernatant of CHO cells expressing human recombinant CL-P1 (1μg/ml) was separated on SDS-PAGE. The monoclonal antibody was used at 1/500 dilution.

The CL-P1 protein migrates at 140 kDa position.

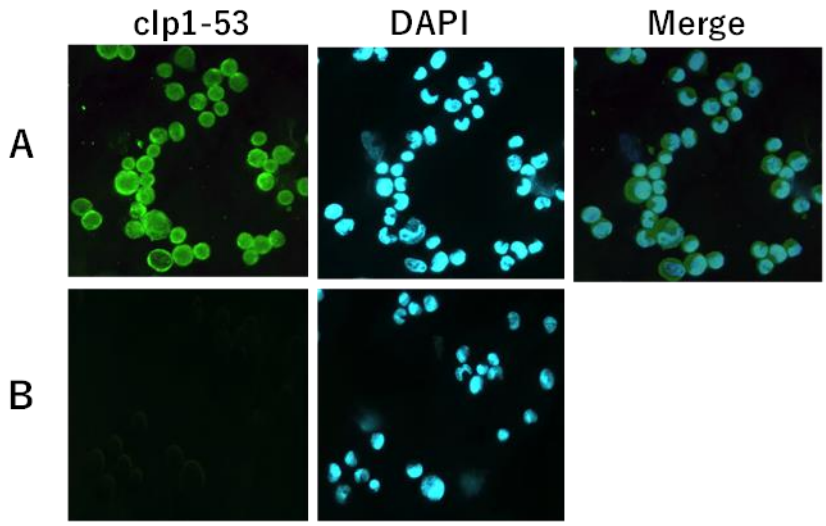

Fig.2. Detection of CL-P1 protein transfected in CHO cells by immunofluorescence staining

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.

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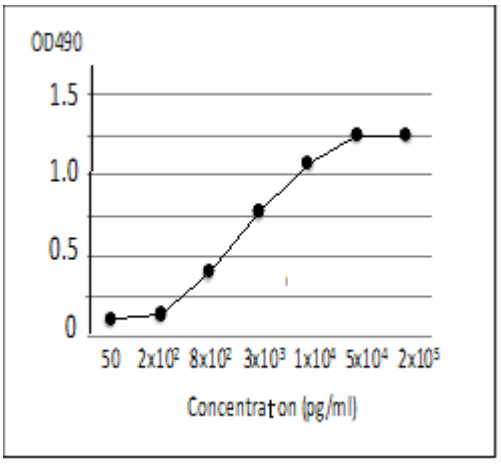

Fig.3. Titration of recombinant CL-P1 protein transfected in CHO cells by indirect ELISA using monoclonal antibody (53).

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 (100µl, 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.

1.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):3956-65PMID: 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-2µ2. Biochim Biophys Acta. 2014 Nov;1840(11):3226-37. PMID: 25109811. **WB, IF: human**

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