

DESCRIPTION

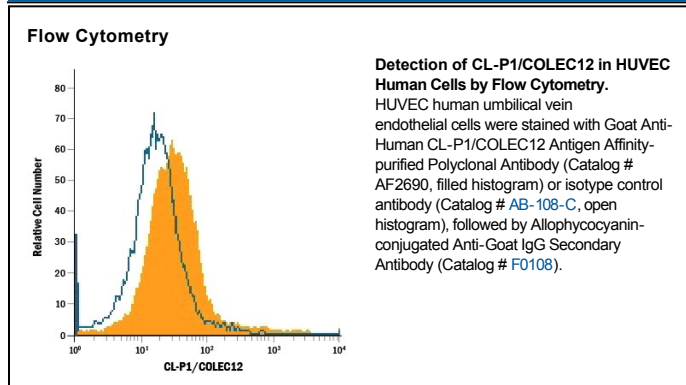
Species Reactivity	Human
Specificity	Detects CL-P1/COLEC12 in direct ELISAs and Western blots. In direct ELISAs, approximately 45% cross-reactivity with recombinant mouse CL-P1 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human CL-P1/COLEC12 isoform 1 Leu57-Leu742 Accession # Q5KU26
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Human CL-P1/COLEC12 (Catalog # 2690-CL)
Flow Cytometry	2.5 µg/10 ⁶ cells	See Below
Immunocytochemistry	5-15 µg/mL	Immersion fixed HUVEC human umbilical vein endothelial cells
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	
Blockade of Receptor-ligand Interaction	In a functional ELISA, 2-8 µg/mL of this antibody will block 50% of the binding of 250 ng/mL of biotinylated AGE-BSA to immobilized Recombinant Human CL-P1/COLEC12 (Catalog # 2690-CL) coated at 5 µg/mL (100 µL/well). At 100 µg/mL, this antibody will block >90% of the binding.	

DATA



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Collectins are a family of Ca⁺⁺-dependent, C-type lectins that contain a collagenous domain and function as recognition molecules for molecular patterns found on pathogens (1-4). Human collectin placenta 1 (CL-P1; also known as collectin sub-family member 12 and SRCL type I [scavenger receptor with C-type lectin type I]) is a 110 kDa member of the collectin family of glycoproteins (5, 6). CL-P1 is the only collectin known to be membrane bound, while CL-L1 (collectin liver-1) is the only known cytoplasmic collectin (1). Human CL-P1 is synthesized as a 742 amino acid (aa) type II transmembrane glycoprotein that contains an N-terminal 39 aa cytoplasmic domain, a 17 aa transmembrane segment, and a 686 aa C-terminal extracellular region (6). The short cytoplasmic domain contains an internalization motif (Y-K-R-F) while the extracellular region is complex, demonstrating a coiled-coil segment, a Ser-Thr rich region, a collagen-like structure and a C-type lectin/carbohydrate recognition domain (CRD). Notably, this CRD recognizes galactose (and fucose) within the context of asialo-orosomucoids associated with the Lewis^x epitope (7, 8). CL-P1 has a 300 kDa trimeric form due to its collagen-like and coiled-coil helical domains (1, 5). There is a 97 kDa, alternate splice form of CL-P1 (SRCL type II) that shows a 120 aa truncation at the C-terminus. This effectively removes the entire CRD found on full-length CL-P1 (6). Human CL-P1 is 93% aa identical to mouse CL-P1 over the entire extracellular region, and 87% aa identical over the CRD region (5, 9). Human CL-P1 is known to be expressed in vascular endothelial cells (5).

References:

1. van de Wetering, JK. *et al.* (2004) *Eur. J. Biochem.* **271**:1229.
2. Holmskov, U. *et al.* (2003) *Annu. Rev. Immunol.* **21**:547.
3. Hoppe, H-J. and K. Reid (1994) *Protein Sci.* **3**:1143.
4. Hickling, T.P. *et al.* (2004) *J. Leukoc. Biol.* **75**:27.
5. Ohtani, K. *et al.* (2001) *J. Biol. Chem.* **276**:44222.
6. Nakamura, K. *et al.* (2001) *Biochem. Biophys. Res. Commun.* **280**:1028.
7. Coombs, P.J. *et al.* (2005) *J. Biol. Chem.* **280**:22993.
8. Yoshida, T. *et al.* (2003) *J. Biochem.* **133**:271.
9. Nakamura, K. *et al.* (2001) *Biochim. Biophys. Acta* **1522**:53.