

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CL-P1/COLEC12 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant mouse CL-P1 is observed.
Source	Monoclonal Rat IgG ₁ Clone # 388305
Purification	Protein A or G purified from hybridoma culture supernatant
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 either lyophilized or 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	1 µg/mL	Recombinant Human CL-P1/COLEC12 (Catalog # 2690-CL)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 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	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <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). With two exceptions, all collectins are secreted. 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 shares 93% aa sequence identity with mouse CL-P1 over the entire extracellular region, and 87% aa identity within each species CRD (5, 9). Human CL-P1 is expressed in vascular endothelial cells (5). CL-P1 may play a role in bacterial recognition or as a scavenger receptor for desialylated glycoproteins.

References:

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