Recombinant Human CL-K1/COLEC11

Catalog Number: 5025-CL

DESCRIPTION

Source	Mouse myeloma cell line, NS0-derived Gln26-Met271, with a C-terminal 6-His tag Accession # Q9BWP8
N-terminal Sequence Analysis	No results obtained: Gln26 predicted
Predicted Molecular Mass	27 kDa

SPECIFICATIONS

SDS-PAGE	36 kDa, reducing conditions
Activity	Measured by its ability to bind α-L-Fucose. Keshi, H. *et al.* (2006) Microbiol. Immunol. **50**(12):1001.
Endotoxin Level	<0.01 EU per 1 µg of the protein by the LAL method.
Purity	>90%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS and NaCl. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 100 µg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 3 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Collectins constitute a family of C-type lectins that recognize molecular patterns expressed on pathogens. Members of this glycoprotein family contain an N-terminal domain, a collagen-like domain, a neck region, and a C-terminal carbohydrate recognition domain (CRD). Collectins are typically secreted molecules, although CL-P1 is membrane bound and CL-L1 is found in the cytoplasm (1 - 3). Collectin kidney 1 (CL-K1), also known as collectin subfamily member 11 (COLEC11), is a 37 kDa collectin that circulates in the blood (4, 5). Alternative splicing may generate multiple isoforms with deletions or substitutions in the N-terminal and collagen-like domains (6). CL-K1 is widely expressed, notably in renal proximal tubules, bronchial glands, and gastrointestinal mucosa (5). It associates into disulfide-linked oligomers and preferentially interacts with fucose residues in a calcium-dependent manner (4). Mature human CL-K1 shares 93% amino acid sequence identity with mouse and rat CL-K1. Within the CRD, human CL-K1 shares 55% aa sequence identity with CL-L1 and 26% - 33% aa sequence identity with collectins CL-P1, MBL, SP-A, and SP-D.

References:

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3. Holmskov, U. *et al.*, 2003, Annu. Rev. Immunol. **21**:547.
4. Keshi, H. *et al.*, 2006, Microbiol. Immunol. **50**:1001.
5. Motomura, W. *et al.*, 2008, J. Histochem. Cytochem. **56**:243.
6. SwissProt # Q9BWP8.

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