

# Product datasheet

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# ARG70391 Human CHI3L1 recombinant protein (His-tagged, C-ter)

Package: 100 μg, 20 μg

Store at: -20°C

#### Summary

Product Description E. coli expressed, His-tagged (C-ter) Human CHI3L1 recombinant protein

Tested Application SDS-PAGE

Target Name CHI3L1

Species Human

A.A. Sequence Tyr22 - Thr383

Expression System E. coli

Alternate Names CHI3L1; Chitinase 3 Like 1; YKL40 YK-40; GP39; Chitinase 3-Like 1 (Cartilage Glycoprotein-39);

Chitinase-3-Like Protein 1; Cartilage Glycoprotein 39; 39 KDa Synovial Protein; HCGP-39; CGP-39;

YKL-40; GP-39; Cartilage Glycoprotein-39; HC-Gp39; HCGP-3P; YYL-40; ASRT7

## **Properties**

Form Powder

Purification Note Endotoxin level is less than 0.1 EU/µg of the protein, as determined by the LAL test.

Purity > 98% (by SDS-PAGE)

Buffer PBS (pH 7.4)

**Reconstitution** It is recommended to reconstitute the lyophilized protein in sterile water to a concentration not less

than 200  $\mu\text{g}/\text{mL}$  and incubate the stock solution for at least 20 min at room temperature to make sure

the protein is dissolved completely.

Storage instruction For long term, lyophilized protein should be stored at -20°C or -80°C. After reconstitution, aliquot and

store at -20°C or -80°C for up to one month. Storage in frost free freezers is not recommended. Avoid

repeated freeze/thaw cycles. Suggest spin the vial prior to opening.

Note For laboratory research only, not for drug, diagnostic or other use.

### Bioinformation

Gene Symbol CHI3L1

Gene Full Name Chitinase 3 Like 1

Background Chitinases catalyze the hydrolysis of chitin, which is an abundant glycopolymer found in insect

exoskeletons and fungal cell walls. The glycoside hydrolase 18 family of chitinases includes eight human family members. This gene encodes a glycoprotein member of the glycosyl hydrolase 18 family. The protein lacks chitinase activity and is secreted by activated macrophages, chondrocytes, neutrophils and synovial cells. The protein is thought to play a role in the process of inflammation and tissue

remodeling.

Function Carbohydrate-binding lectin with a preference for chitin. Has no chitinase activity. May play a role in

tissue remodeling and in the capacity of cells to respond to and cope with changes in their environment. Plays a role in T-helper cell type 2 (Th2) inflammatory response and IL-13-induced inflammation, regulating allergen sensitization, inflammatory cell apoptosis, dendritic cell accumulation and M2 macrophage differentiation. Facilitates invasion of pathogenic enteric bacteria into colonic mucosa and lymphoid organs. Mediates activation of AKT1 signaling pathway and subsequent IL8

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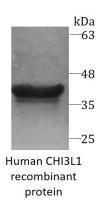
production in colonic epithelial cells. Regulates antibacterial responses in lung by contributing to macrophage bacterial killing, controlling bacterial dissemination and augmenting host tolerance. Also

regulates hyperoxia-induced injury, inflammation and epithelial apoptosis in lung.

PTM Disulfide bond, Glycoprotein

**Cellular Localization** Cytoplasm, Endoplasmic reticulum, Secreted

## **Images**



ARG70391 Human CHI3L1 recombinant protein (His-tagged, C-ter) SDS-PAGE image

SDS-PAGE analysis of ARG70391 Human CHI3L1 recombinant protein (His-tagged, C-ter)