# Human YKL-40/CHI3L1 Protein

**Cat. No.** YKL-HM240

## Description

| | |
|---|---|
| **Source** | Recombinant Human YKL-40/CHI3L1 Protein is expressed from HEK293 with hFc (IgG1) tag at the C-terminus. |
| | It contains Tyr22-Thr383. |
| **Accession** | P36222 |
| **Molecular Weight** | The protein has a predicted MW of 66.43 kDa. Due to glycosylation, the protein migrates to 65-85 kDa based on Bis-Tris PAGE result. |
| **Endotoxin** | Less than 1 EU per μg by the LAL method. |
| **Purity** | > 95% as determined by Bis-Tris PAGE |
| | > 95% as determined by HPLC |

## Formulation and Storage

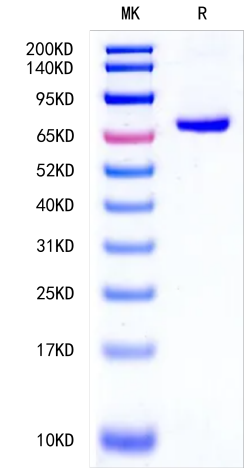
| | |
|---|---|
| **Formulation** | Lyophilized from 0.22 μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization. |
| **Reconstitution** | Dissolve the lyophilized protein in distilled water. Please refer to the Certificate of Analysis for detailed instructions. |
| **Storage** | -20 to -80°C for 12 months as supplied from date of receipt.-80°C for 3 months after reconstitution.Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles. |

## Background

YKL-40 (also known as Chitinase 3-like 1) is a glycoprotein produced by inflammatory, cancer and stem cells. Its physiological role is not completely understood but YKL-40 is elevated in the brain and cerebrospinal fluid (CSF) in several neurological and neurodegenerative diseases associated with inflammatory processes. Yet the precise characterization of YKL-40 in dementia cases is missing. YKL-40 is a disease-specific marker of neuroinflammation showing its highest levels in prion diseases. Therefore, YKL-40 quantification might have a potential for application in the evaluation of therapeutic intervention in dementias with a neuroinflammatory component.

## Assay Data

### Bis-Tris PAGE



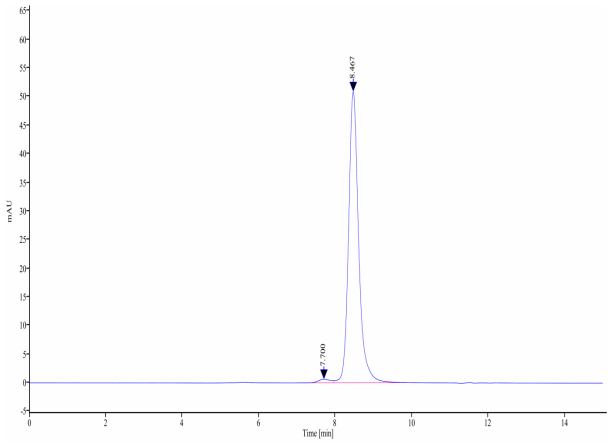

Human YKL-40 on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

### SEC-HPLC

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## Assay Data



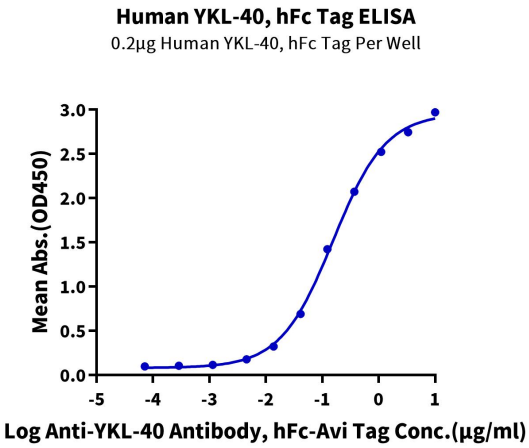

The purity of Human YKL-40 is greater than 95% as determined by SEC-HPLC.

# Human YKL-40/CHI3L1 Protein

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## Assay Data

### ELISA Data




Immobilized Human YKL-40, hFc Tag at 2μg/ml (100μl/well) on the plate. Dose response curve for Anti-YKL-40 Antibody, hFc Tag with the EC50 of 0.16μg/ml determined by ELISA.

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