

# Human YKL-40/CHI3L1 Protein

Cat. No. YKL-HM140

## Description

<b>Source</b>	Recombinant Human YKL-40/CHI3L1 Protein is expressed from HEK293 with His tag at the C-Terminus. It contains Tyr22-Thr383.
<b>Accession</b>	P36222
<b>Molecular Weight</b>	The protein has a predicted MW of 41.6 kDa. Due to glycosylation, the protein migrates to 42-50 kDa based on Tris-Bis PAGE result.
<b>Endotoxin</b>	Less than 1EU per µg by the LAL method.
<b>Purity</b>	> 95% as determined by Tris-Bis PAGE > 95% as determined by HPLC

## Formulation and Storage

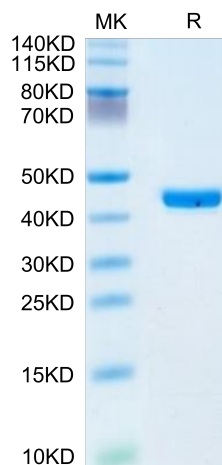
<b>Formulation</b>	Lyophilized from 0.22µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 µg/ml is recommended. Dissolve the lyophilized protein in distilled water.
<b>Storage</b>	-20 to -80°C for 12 months as supplied from date of receipt. -20 to -80°C for 3-6 months in unopened state after reconstitution. 2-8°C for 2-7 days 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

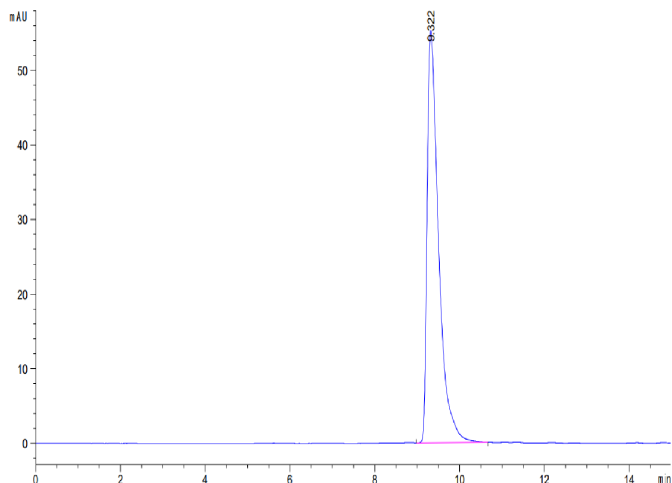
### Tris-Bis PAGE



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

### SEC-HPLC

Assay Data

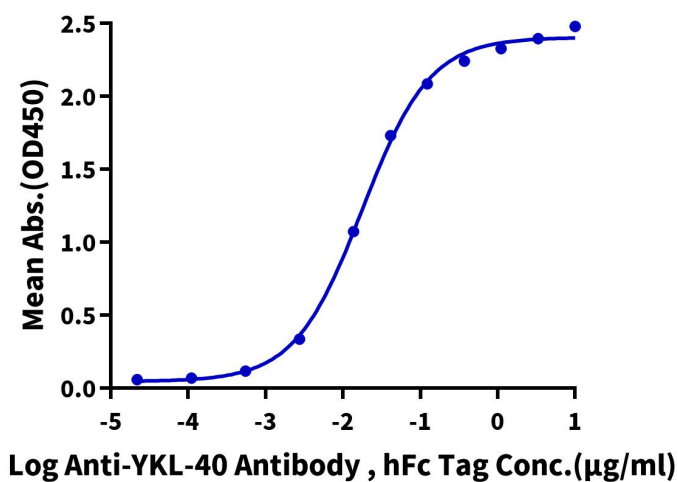


The purity of Human YKL-40 is greater than 95% as determined by SEC-HPLC.

ELISA Data

Human YKL-40, His Tag ELISA

0.1µg Human YKL-40, His Tag Per Well



Immobilized Human YKL-40, His Tag at 1µg/ml (100µl/well) on the plate. Dose response curve for Anti-YKL-40 Antibody, hFc Tag with the EC50 of 17.8ng/ml determined by ELISA.