

Human YKL-40/CHI3L1 Protein

Cat. No. YKL-HM140

Description

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

Formulation and Storage

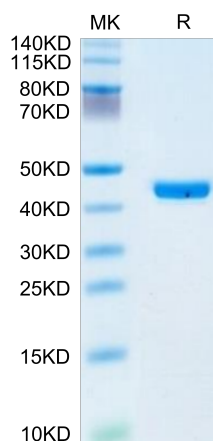
Formulation	Lyophilized from 0.22 μ m filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 μ g/ml is recommended. Dissolve the lyophilized protein in distilled water.
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.

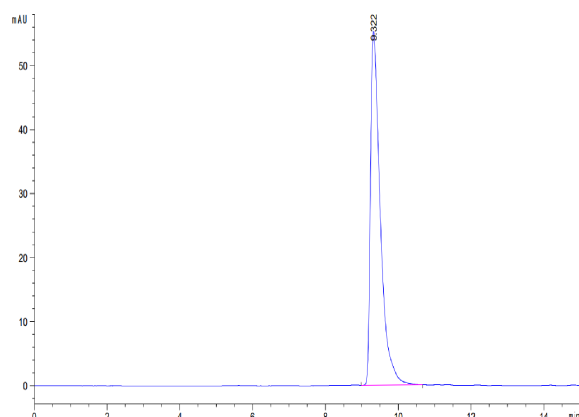
Assay Data

Bis-Tris PAGE



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

SEC-HPLC



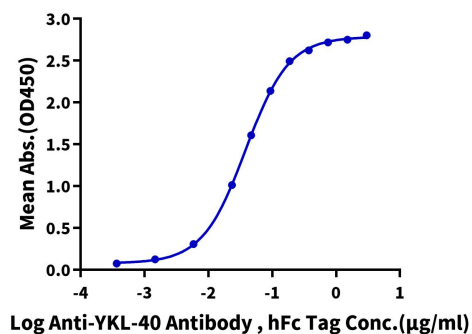
The purity of Human YKL-40 is greater than 95% as determined by SEC-HPLC.

Assay Data

ELISA Data

Human YKL-40, His Tag ELISA

0.2µg Human YKL-40, His Tag Per Well



Immobilized Human YKL-40, His Tag at 2µg/ml (100µl/well) on the plate. Dose response curve for Anti-YKL-40 Antibody, hFc Tag with the EC50 of 38.2ng/ml determined by ELISA (QC Test).