

Mouse CHI3L1 / YKL40 / gp39 Protein (His Tag)

Catalog Number: 50929-M08H



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

ASRT7; CGP-39; DKFZp686N19119; FLJ38139; GP-39; GP39; HC-gp39; hCGP-39; HCGP-3P; YKL-40; YKL40; YYL-40; AW208766; Brp39; Gp39

Protein Construction:

A DNA sequence encoding the extracellular domain of mouse CHI3L1 (Q61362) (Met 1-Ala 381) was expressed, with a C-terminal polyhistidine tag.

Source: Mouse

Expression Host: Human Cells

QC Testing

Purity: > 97 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Tyr 371

Molecular Mass:

The secreted recombinant mouse CHI3L1 comprises 371 amino acids and has a calculated molecular mass of 42.3 kDa. As a result of glycosylation, the apparent molecular mass of rmCHI3L1 is approximately 50 kDa in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

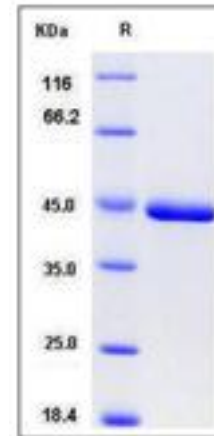
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Chitinase-3-like protein 1 (CHI3L1) is a secreted heparin-binding glycoprotein whose expression is associated with vascular smooth muscle cell migration. CHI3L1 is expressed at high levels in postconfluent nodular VSMC cultures and at low levels in subconfluent proliferating cultures. CHI3L1 is a tissue-restricted, chitin-binding lectin and member of glycosyl hydrolase family 18. In contrast to many other monocyte / macrophage markers, its expression is absent in monocytes and strong induced during late stages of human macrophage differentiation. Elevated levels of CHI3L1 are associated with disorders exhibiting increased connective tissue turnover, such as rheumatoid arthritis, osteoarthritis, scleroderma, and cirrhosis of liver, but is produced in cartilage from old donors or patients with osteoarthritis. CHI3L1 is abnormally expressed in the hippocampus of subjects with schizophrenia and may be involved in the cellular response to various environmental events that are reported to increase the risk of schizophrenia.

References

1. Zhao XZH, *et al.* (2007) Functional Variants in the Promoter Region of Chitinase 3-Like 1 (CHI3L1) and Susceptibility to Schizophrenia. *The American Journal of Human Genetics.* 80 (1): 12-18.
2. Rehli M, *et al.* (2003) Transcriptional Regulation of CHI3L1, a Marker Gene for Late Stages of Macrophage Differentiation. *The Journal of Biological Chemistry.* 278: 44058-67.
3. Nishikawa KC, *et al.* (2003) gp38k (CHI3L1) is a novel adhesion and migration factor for vascular cells. *Experimental Cell Research.* 287 (1): 79-87

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