

Human Ficolin-1 / Ficolin-A / FCN1 Protein (His Tag)

Catalog Number: 10930-H08H



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

FCN1; FCNM; FCN1; FCNA

Protein Construction:

A DNA sequence encoding the human FCN1 (NP_001994.2) precursor (Met 1-Ala 326) was expressed with a C-terminal polyhistidine tag.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

Measured by its binding ability in a functional ELISA. 1. Immobilized FCN1 at 10 µg/ml can bind biotinylated recombinant human Fetuin-A with a linear range of 16-2000 ng/ml. 2. Immobilized FCN1 at 10 µg/ml can bind biotinylated recombinant mouse Fetuin-A with a linear range of 16-2000 ng/ml.

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: Ala 30

Molecular Mass:

The secreted recombinant human FCN1 comprises 308 amino acids with a predicted molecular mass of 33.6 kDa as estimated 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:

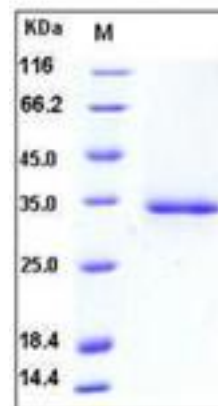
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Ficolins are humoral molecules of the innate immune systems which recognize carbohydrate molecules on pathogens, apoptotic and necrotic cells. The Ficolin family of proteins are characterized by the presence of a leader peptide, a short N-terminal segment, followed by a collagen-like region, and a C-terminal fibrinogen-like domain. Ficolins are humoral molecules of the innate immune systems which recognize carbohydrate molecules on pathogens, apoptotic and necrotic cells. Three Ficolins have been identified in humans: L-Ficolin, H-Ficolin and M-Ficolin (also referred to as Ficolin-2, -3 and -1, respectively). They are soluble oligomeric defence proteins with lectin-like activity and they are structurally similar to the human collectins, mannan-binding lectin (MBL) and surfactant protein A and D. Dysfunction or abnormal expressions of Ficolins may involved in the pathogenesis of human diseases including infectious and inflammatory diseases, autoimmune disease and clinical syndrome of preeclampsia. They are soluble oligomeric defence proteins with lectin-like activity and they are structurally similar to the human collectins, mannan-binding lectin (MBL) and surfactant protein A and D. Upon recognition of the infectious agent, the Ficolins act through two distinct routes: initiate the lectin pathway of complement activation through attached serine proteases (MASPs), and a primitive opsonophagocytosis thus limiting the infection and concurrently orchestrating the subsequent adaptive clonal immune response. Ficolin-1 (FCN1) is predominantly expressed in the peripheral blood leukocytes.

References

1. Thiel S. (2007) Complement activating soluble pattern recognition molecules with collagen-like regions, mannan-binding lectin, ficolins and associated proteins. *Mol Immunol.* 44(16): 3875-88.
2. Zhang XL, *et al.* (2008) Ficolins: structure, function and associated diseases. *Adv Exp Med Biol.* 632: 105-15.
3. Garred P, *et al.* (2009) MBL2, FCN1, FCN2 and FCN3-The genes behind the initiation of the lectin pathway of complement. *Mol Immunol.* 46(14): 2737-44.

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Fax :+86-10-51029969 • Tel:+86-400-890-9989 • <http://www.sinobiological.com>