

L-ficolin (FCN219): sc-130297

BACKGROUND

L-ficolin, also called ficolin-2, ficolin-B (in mouse and rat), collagen/Fibrinogen domain-containing protein 2, serum lectin p35, EBP-37 or hucolin, is a 313 amino acid member of the ficolin lectin family. L-ficolin is a secreted innate immunity pattern recognition molecule expressed in liver and plasma that forms a disulfide-linked homopolymer. This extensive N-terminal disulfide bridge formation can lead to a functional dodecamer polypeptide. L-ficolin binds to DNA ligands expressed by late apoptotic and necrotic cells to increase attachment and engulfment. Variation in L-ficolin concentrations amongst individuals is associated with polymorphisms in the promoter and structural portion of the FCN2 gene. In patients with Behçet's disease (BD) there exists a significant difference in allele frequency for FCN2 gene single nucleotide polymorphisms (SNPs) within the -557 and -64 promoter sites within HLA-B51 positive and HLA-B51 negative subgroups.

REFERENCES

1. Lynch, N.J., et al. 2004. L-ficolin specifically binds to lipoteichoic acid, a cell wall constituent of Gram-positive bacteria, and activates the lectin pathway of complement. *J. Immunol.* 172: 1198-1202.
2. Ma, Y.G., et al. 2004. Human mannose-binding lectin and L-ficolin function as specific pattern recognition proteins in the lectin activation pathway of complement. *J. Biol. Chem.* 279: 25307-25312.
3. Krarup, A., et al. 2004. L-ficolin is a pattern recognition molecule specific for acetyl groups. *J. Biol. Chem.* 279: 47513-47519.
4. Aoyagi, Y., et al. 2005. Role of L-ficolin/mannose-binding lectin-associated serine protease complexes in the opsonophagocytosis of type III group B streptococci. *J. Immunol.* 174: 418-425.

CHROMOSOMAL LOCATION

Genetic locus: FCN2 (human) mapping to 9q34.3; Fcnb (mouse) mapping to 2 A3.

SOURCE

L-ficolin (FCN219) is a mouse monoclonal antibody raised against recombinant L-ficolin of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

L-ficolin (FCN219) is available conjugated to agarose (sc-130297 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-130297 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-130297 PE), fluorescein (sc-130297 FITC), Alexa Fluor® 488 (sc-130297 AF488), Alexa Fluor® 546 (sc-130297 AF546), Alexa Fluor® 594 (sc-130297 AF594) or Alexa Fluor® 647 (sc-130297 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-130297 AF680) or Alexa Fluor® 790 (sc-130297 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

L-ficolin (FCN219) is recommended for detection of L-ficolin of human origin and ficolin B of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with M-ficolin or H-ficolin.

Suitable for use as control antibody for L-ficolin siRNA (h): sc-105603, ficolin B siRNA (m): sc-145179, L-ficolin shRNA Plasmid (h): sc-105603-SH, ficolin B shRNA Plasmid (m): sc-145179-SH, L-ficolin shRNA (h) Lentiviral Particles: sc-105603-V and ficolin B shRNA (m) Lentiviral Particles: sc-145179-V.

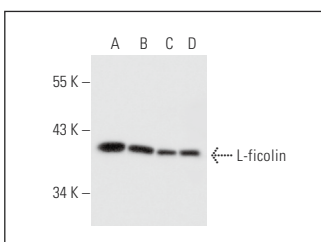
Molecular Weight of L-ficolin: 34 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, NCI-H929 whole cell lysate: sc-364786 or MDA-MB-435S whole cell lysate: sc-364184.

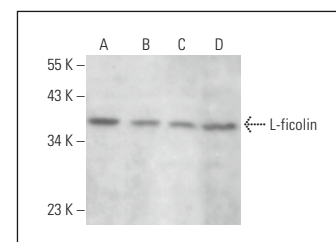
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



L-ficolin (FCN219): sc-130297. Western blot analysis of L-ficolin expression in Jurkat (A), NCI-H929 (B), HEK293 (C) and MDA-MB-435S (D) whole cell lysates.



L-ficolin (FCN219): sc-130297. Western blot analysis of L-ficolin expression in Jurkat (A), K-562 (B), M1 (C) and c4 (D) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Ding, Q., et al. 2017. Ficolin-2 triggers antitumor effect by activating macrophages and CD8⁺ T cells. *Clin. Immunol.* 183: 145-157.
2. Wu, X., et al. 2020. Ficolin A derived from local macrophages and neutrophils protects against LPS-induced acute lung injury by activating complement. *Immunol. Cell Biol.* 98: 595-606.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

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