SANTA CRUZ BIOTECHNOLOGY, INC.

Mindin (D-4): sc-376562

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Thrombospondin proteins, Thrombospondins 1-4 and Thrombospondin 5 (also designated COMP), compose a family of glycoproteins that are involved in cell-to-cell and cell-to-matrix signaling. These extracellular, cell-surface proteins form complexes of both homo- and heteromultimers. Spondin-2, or Mindin, is also designated DIL-1 for its differential expression in cancerous and non-cancerous lung cells. Full-length SPON2 cDNA encodes a 331 amino acid protein with a domain arrangement similar to zebrafish F-Spondin and Mindin-1/Mindin-2: an FS1 domain, an FS2 domain, a hydrophobic signal sequence in the N-terminus and a Thrombospondin type I repeat. Immunoblot analysis demonstrates expression of dimers and oligomers in a concentration-dependent manner under nonreducing conditions.

REFERENCES

1. Higashijima, S., et al. 1997. Mindin/F-Spondin family: novel ECM proteins expressed in the zebrafish embryonic axis. Dev. Biol. 192: 211-227.
2. Feinstein, Y., et al. 1999. F-Spondin and Mindin: two structurally and functionally related genes expressed in the hippocampus that promote outgrowth of embryonic hippocampal neurons. Development 126: 3637-3648.
3. Manda, R., et al. 1999. Identification of genes (SPON2 and C20orf2) differentially expressed between cancerous and noncancerous lung cells by mRNA differential display. Genomics 61: 5-14.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 605918. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
5. He, Y.W., et al. 2004. The extracellular matrix protein Mindin is a pattern-recognition molecule for microbial pathogens. Nat. Immunol. 5: 88-97.
6. Feinstein, Y., et al. 2004. The neuronal class 2 TSR proteins F-Spondin and Mindin: a small family with divergent biological activities. Int. J. Biochem. Cell Biol. 36: 975-980.

CHROMOSOMAL LOCATION

Genetic locus: SPON2 (human) mapping to 4p16.3; Spon2 (mouse) mapping to 5 B1.

SOURCE

Mindin (D-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 289-315 at the C-terminus of Mindin of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-376562 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

Mindin (D-4) is recommended for detection of Mindin and mature Spondin-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Mindin siRNA (h): sc-61046, Mindin siRNA (m): sc-61047, Mindin shRNA Plasmid (h): sc-61046-SH, Mindin shRNA Plasmid (m): sc-61047-SH, Mindin shRNA (h) Lentiviral Particles: sc-61046-V and Mindin shRNA (m) Lentiviral Particles: sc-61047-V.

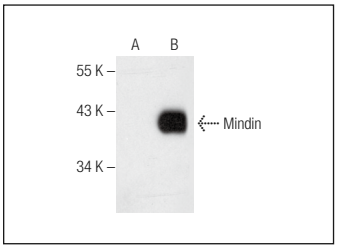
Molecular Weight of Mindin: 36 kDa.

Positive Controls: Mindin (h): 293T Lysate: sc-114252.

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). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Mindin (D-4): sc-376562. Western blot analysis of Mindin expression in non-transfected: sc-117752 (**A**) and human Mindin transfected: sc-114252 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Torres, S., et al. 2013. Proteome profiling of cancer-associated fibroblasts identifies novel proinflammatory signatures and prognostic markers for colorectal cancer. Clin. Cancer Res. 19: 6006-6019.
2. Arya, R., et al. 2020. Serum small extracellular vesicles proteome of tuberculosis patients demonstrated deregulated immune response. Proteomics Clin. Appl. 14: e1900062.

RESEARCH USE

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