

ECM1 (C-12): sc-365946

BACKGROUND

ECM1 (extracellular matrix protein 1), also known as secretory component p85, is a secreted glycoprotein that is essential for the proper structure and function of the skin. It is widely expressed and localizes to the extracellular matrix. ECM1 binds to a variety of extracellular matrix components, including Perlecan, fibulin and matrix metalloproteinase-9 (MMP-9), and participates in the structural organization of the dermis. In addition, ECM1 enhances the association of Collagen Type IV with Laminin 332 suggesting that it is a key player in interstitial dermis and the dermal-epidermal junction. Mutations in the gene encoding ECM1 result in the autosomal recessive disorder lipoid proteinosis (LiP). LiP is characterized by hyalinization of the dermis and reduplication of the basement membrane of the skin. LiP patients exhibit thickening of the skin and mucosae. Four splice variants (known as ECM1a-ECM1d) exist for ECM1.

REFERENCES

1. Horev, L., et al. 2005. A novel splice site mutation in ECM1 gene in a consanguineous family with lipoid proteinosis. *Exp. Dermatol.* 14: 891-897.
2. Lupo, I., et al. 2005. A novel mutation of the extracellular matrix protein 1 gene (ECM1) in a patient with lipoid proteinosis (Urbach-Wiethe disease) from Sicily. *Br. J. Dermatol.* 153: 1019-1022.
3. Fujimoto, N., et al. 2005. Extracellular matrix protein 1 interacts with the domain III of fibulin-1C and 1D variants through its central tandem repeat 2. *Biochem. Biophys. Res. Commun.* 333: 1327-1333.
4. Kebebew, E., et al. 2005. ECM1 and TMPRSS4 are diagnostic markers of malignant thyroid neoplasms and improve the accuracy of fine needle aspiration biopsy. *Ann. Surg.* 242: 353-363.

CHROMOSOMAL LOCATION

Genetic locus: ECM1 (human) mapping to 1q21.3.

SOURCE

ECM1 (C-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 43-77 near the N-terminus of ECM1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ECM1 (C-12) is available conjugated to agarose (sc-365946 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365946 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365946 PE), fluorescein (sc-365946 FITC), Alexa Fluor® 488 (sc-365946 AF488), Alexa Fluor® 546 (sc-365946 AF546), Alexa Fluor® 594 (sc-365946 AF594) or Alexa Fluor® 647 (sc-365946 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365946 AF680) or Alexa Fluor® 790 (sc-365946 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-365946 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

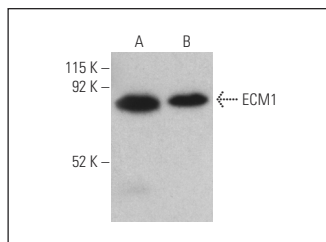
ECM1 (C-12) is recommended for detection of ECM1 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 ECM1 siRNA (h): sc-62255, ECM1 shRNA Plasmid (h): sc-62255-SH and ECM1 shRNA (h) Lentiviral Particles: sc-62255-V.

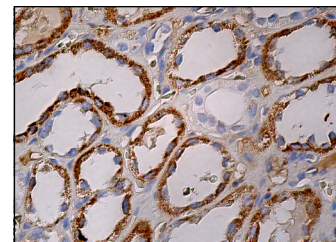
Molecular Weight of ECM1: 85 kDa.

Positive Controls: A-375 cell lysate: sc-3811 or CCD-1064Sk cell lysate: sc-2263.

DATA



ECM1 (C-12) HRP: sc-365946 HRP. Direct western blot analysis of ECM1 expression in A-375 (A) and Hs294T (B) whole cell lysates.



ECM1 (C-12): sc-365946. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in tubules.

SELECT PRODUCT CITATIONS

1. Gómez-Contreras, P., et al. 2017. Extracellular matrix 1 (ECM1) regulates the Actin cytoskeletal architecture of aggressive breast cancer cells in part via S100A4 and Rho-family GTPases. *Clin. Exp. Metastasis* 34: 37-49.
2. Santasusagna, S., et al. 2018. Proteomic analysis of liquid biopsy from tumor-draining vein indicates that high expression of exosomal ECM1 is associated with relapse in stage I-III colon cancer. *Transl. Oncol.* 11: 715-721.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

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