SANTA CRUZ BIOTECHNOLOGY, INC.

ECM1 (F-1): sc-365335

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

CHROMOSOMAL LOCATION

Genetic locus: ECM1 (human) mapping to 1q21.3; Ecm1 (mouse) mapping to 3 F2.1.

SOURCE

ECM1 (F-1) is a mouse monoclonal antibody raised against amino acids 161-460 mapping within an internal region of ECM1 of human origin.

PRODUCT

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

ECM1 (F-1) is available conjugated to agarose (sc-365335 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-365335 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365335 PE), fluorescein (sc-365335 FITC), Alexa Fluor® 488 (sc-365335 AF488), Alexa Fluor® 546 (sc-365335 AF546), Alexa Fluor® 594 (sc-365335 AF594) or Alexa Fluor® 647 (sc-365335 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365335 AF680) or Alexa Fluor® 790 (sc-365335 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

ECM1 (F-1) is recommended for detection of ECM1 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), 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 siRNA (m): sc-62256, ECM1 shRNA Plasmid (h): sc-62255-SH, ECM1 shRNA Plasmid (m): sc-62256-SH, ECM1 shRNA (h) Lentiviral Particles: sc-62255-V and ECM1 shRNA (m) Lentiviral Particles: sc-62256-V.

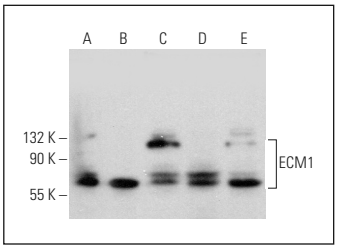
Molecular Weight of ECM1: 85 kDa.

Positive Controls: A-375 cell lysate: sc-3811, K-562 whole cell lysate: sc-2203 or U-87 MG cell lysate: sc-2411.

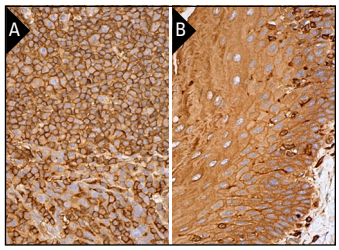
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGλ BP-HRP: sc-516132 or m-IgGλ BP-HRP (Cruz Marker): sc-516132-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-IgGλ BP-FITC: sc-516185 or m-IgGλ BP-PE: sc-516186 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGλ BP-HRP: sc-516132 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



ECM1 (F-1): sc-365335. Western blot analysis of ECM1 expression in A-375 (**A**), K-562 (**B**), SJRH30 (**C**), U-87 MG (**D**) and A-431 (**E**) whole cell lysates. Detection reagent used: m-IgGλ BP-HRP (Cruz Marker): sc-516132-CM.



ECM1 (F-1): sc-365335. Immunoperoxidase staining of formalin fixed, paraffin-embedded human tonsil tissue showing membrane and cytoplasmic staining of cells in germinal center and cells in non-germinal center (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing membrane and cytoplasmic staining of squamous epithelial cells (**B**).

SELECT PRODUCT CITATIONS

1. Clement, C.C., et al. 2013. Protein expression profiles of human lymph and plasma mapped by 2D-DIGE and 1D SDS-PAGE coupled with nanoLC-ESI-MS/MS bottom-up proteomics. J. Proteomics 78: 172-187.
2. Alabi, B.R., et al. 2019. Decellularized mice colons as models to study the contribution of the extracellular matrix to cell behavior and colon cancer progression. Acta Biomater. 100: 213-222.
3. Yin, H., et al. 2020. Identification of Sca-1+Abcg1+ bronchioalveolar epithelial cells as the origin of lung adenocarcinoma in Gprc5a-knockout mouse model through the interaction between lung progenitor AT2 and Lgr5 cells. Oncogene 39: 3754-3773.

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.