SANTA CRUZ BIOTECHNOLOGY, INC.

μ-protocadherin (A-11): sc-166953



BACKGROUND

The mucin-like protocadherin, µ-protocadherin, is a developmentally regulated, single pass type I transmembrane protein that belongs to the cadherin superfamily. It contains four cadherin-like ectodomains, a triply repeating Mucin domain, four SH3 binding regions, N- and O-glycosylation sites and a possible C-terminal PDZ binding domain. µ-protocadherin is expressed in various epithelial tissues and localizes to the apical surface along the brush border of the proximal convoluted tubule. It acts as a calcium-dependent cell adhesion molecule mediating cell aggregation and may play a role in the activation of signaling events. Due to alternative splicing at least four isoforms exist for μ-protocadherin. These isoforms vary in the region containing the mucin-like domains. Only the longest isoform contains the triply repeating mucin domain.

CHROMOSOMAL LOCATION

Genetic locus: CDHR5 (human) mapping to 11p15.5; Mupcdh (mouse) mapping to 7 F5.

SOURCE

μ-protocadherin (A-11) is a mouse monoclonal antibody raised against amino acids 126-350 mapping within an extracellular domain of µ-protocadherin of human origin.

PRODUCT

Each vial contains 200 μ g lgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

µ-protocadherin (A-11) is available conjugated to agarose (sc-166953 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166953 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166953 PE), fluorescein (sc-166953 FITC), Alexa Fluor® 488 (sc-166953 AF488), Alexa Fluor® 546 (sc-166953 AF546), Alexa Fluor® 594 (sc-166953 AF594) or Alexa Fluor® 647 (sc-166953 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166953 AF680) or Alexa Fluor® 790 (sc-166953 AF790), 200 $\mu g/ml$, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

 μ -protocadherin (A-11) is recommended for detection of μ -protocadherin 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 paraffinembedded 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 μ -protocadherin siRNA (h): sc-72286, µ-protocadherin siRNA (m): sc-152486, µ-protocadherin shRNA Plasmid (h): sc-72286-SH, µ-protocadherin shRNA Plasmid (m): sc-152486-SH, μ-protocadherin shRNA (h) Lentiviral Particles: sc-72286-V and µ-protocadherin shRNA (m) Lentiviral Particles: sc-152486-V.

Molecular Weight of µ-protocadherin four isoforms: 110-220 kDa.

Positive Controls: µ-protocadherin (h): 293T Lysate: sc-112145.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG K BP-HRP: sc-516102 or m-IgG K 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-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-lgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA





u-protocadherin (A-11): sc-166953. Western blot analysis of µ-protocadherin expression in non transfected: sc-117752 (A) and human µ-protocadherin transfected: sc-112145 (B) 293T whole cell lysates

µ-protocadherin (A-11): sc-166953. Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing striated border staining

SELECT PRODUCT CITATIONS

- 1. Montorsi, L., et al. 2016. Expression of µ-protocadherin is negatively regulated by the activation of the β -catenin signaling pathway in normal and cancer colorectal enterocytes. Cell Death Dis. 7: e2263.
- 2. Parenti, S., et al. 2018. KLF4 mediates the effect of 5-ASA on the β-catenin pathway in colon cancer cells. Cancer Prev. Res. 11: 503-510.
- 3. Gao, J., et al. 2020. Up-regulation of CDHR5 expression promotes malignant phenotype of pancreatic ductal adenocarcinoma. J. Cell. Mol. Med. 24: 12726-12735.

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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