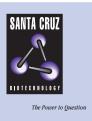
SANTA CRUZ BIOTECHNOLOGY, INC.

μ-protocadherin (M-303): sc-67367



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.

REFERENCES

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- Paris, M.J. and Williams, B.R. 2001. Characterization of a 500-kb contig spanning the region between c-Ha-Ras and MUC2 on chromosome 11p15.5. Genomics 69: 196-202.
- 3. Goldberg, M., et al. 2002. Identification and expression analysis of the human μ -protocadherin gene in fetal and adult kidneys. Am. J. Physiol. Renal Physiol. 283: F454-F463.
- 4. Goldberg, M., et al. 2003. Biallelic expression of HRAS and MUCDHL in human and mouse. Hum. Genet. 112: 334-342.
- Wang, Y., et al. 2004. Gene expression profiles and molecular markers to predict recurrence of Dukes' B colon cancer. J. Clin. Oncol. 22: 1564-1571.
- 6. Moulton, D.E., et al. 2004. Expression of a novel cadherin in the mouse and human intestine. Pediatr. Res. 55: 927-934.
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- 8. Kostadinov, R., et al. 2006. GRSDB: a database of quadruplex forming G-rich sequences in alternatively processed mammalian pre-mRNA sequences. Nucleic Acids Res. 34: D119-D124.
- Garrison, W.D., et al. 2006. Hepatocyte nuclear factor 4alpha is essential for embryonic development of the mouse colon. Gastroenterology 130: 1207-1220.

CHROMOSOMAL LOCATION

Genetic locus: Mucdhl (mouse) mapping to 7 F5.

SOURCE

 μ -protocadherin (M-303) is a rabbit polyclonal antibody raised against amino acids 209-511 mapping within an extracellular domain of μ -protocadherin of mouse origin.

RESEARCH USE

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

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

 μ -protocadherin (M-303) is recommended for detection of μ -protocadherin of mouse and, to a lesser extent, rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1–2 μ g per 100–500 μ g 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 μ -protocadherin siRNA (h): sc-72286, μ -protocadherin shRNA Plasmid (h): sc-72286-SH and μ -protocadherin shRNA (h) Lentiviral Particles: sc-72286-V.

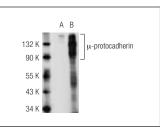
Molecular Weight of µ-protocadherin isoforms: 110-220 kDa.

Positive Controls: µ-protocadherin (m): 293T Lysate: sc-127848.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

DATA



μ-protocadherin (M-3): sc-67367. Western blot analysis of μ-protocadherin expression in non-transfected: sc-117752 (**A**) and mouse μ-protocadherin transfected: sc-127848 (**B**) 293T whole cell lysates.

STORAGE

Store at 4° C, **D0 NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

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