### SANTA CRUZ BIOTECHNOLOGY, INC.

# μ-protocadherin (H-225): sc-67366



#### BACKGROUND

The mucin-like protocadherin,  $\mu$ -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.  $\mu$ -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  $\mu$ -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.
- Goldberg, M., Wei, M., Tycko, B., Falikovich, I. and Warburton, D. 2002. Identification and expression analysis of the human μ-protocadherin gene in fetal and adult kidneys. Am. J. Physiol. Renal Physiol. 283: F454-F463.
- Goldberg, M., Wei, M., Yuan, L., Murty, V.V. and Tycko, B. 2003. Biallelic expression of HRAS and MUCDHL in human and mouse. Hum. Genet. 112: 334-342.
- Wang, Y., Jatkoe, T., Zhang, Y., Mutch, M.G., Talantov, D., Jiang, J., McLeod, H.L. and Atkins, D. 2004. Gene expression profiles and molecular markers to predict recurrence of Dukes' B colon cancer. J. Clin. Oncol. 22: 1564-1571.
- Moulton, D.E., Crandall, W., Lakhani, R. and Lowe, M.E. 2004. Expression of a novel cadherin in the mouse and human intestine. Pediatr. Res. 55: 927-934.

#### CHROMOSOMAL LOCATION

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

#### SOURCE

 $\mu\text{-}protocadherin$  (H-225) is a rabbit polyclonal antibody raised against amino acids 126-350 mapping within an extracellular domain of  $\mu\text{-}protocadherin$  of human origin.

#### PRODUCT

Each vial contains 200  $\mu g$  IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

#### **RESEARCH USE**

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

#### APPLICATIONS

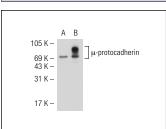
 $\mu$ -protocadherin (H-225) is recommended for detection of  $\mu$ -protocadherin of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

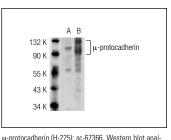
Suitable for use as control antibody for  $\mu$ -protocadherin siRNA (h): sc-72286,  $\mu$ -protocadherin siRNA (m): sc-152486,  $\mu$ -protocadherin shRNA Plasmid (h): sc-72286-SH,  $\mu$ -protocadherin shRNA Plasmid (m): sc-152486-SH,  $\mu$ -protocadherin shRNA (h) Lentiviral Particles: sc-72286-V and  $\mu$ -protocadherin shRNA (m) Lentiviral Particles: sc-152486-V.

Molecular Weight of  $\mu$ -protocadherin isoforms: 110-220 kDa.

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

#### DATA





ysis of µ-protocadherin expression in non-transfected

sc-117752 (A) and mouse  $\mu$ -protocadherin transfected:

sc-127848 (B) 293T whole cell lysates.

μ-protocadherin (H-225): sc-67366. 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.

#### **STORAGE**

Store at 4° C, \*\*DO 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.

## MONOS Satisfation Guaranteed

Try  $\mu$ -protocadherin (A-11): sc-166953 or  $\mu$ -protocadherin (G-1): sc-271138, our highly recommended monoclonal alternatives to  $\mu$ -protocadherin (H-225).