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



The Power to Question

BACKGROUND

The mucin-like protocadherin, $\mu\text{-protocadherin}$, 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 0-glycosylation sites and a possible C-terminal PDZ binding domain. $\mu\text{-protocadherin}$ 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 $\mu\text{-protocadherin}$. These isoforms vary in the region containing the mucin-like domains. Only the longest isoform contains the triply repeating mucin domain.

REFERENCES

- Goldberg, M., Peshkovsky, C., Shifteh, A. and Al-Awqati, Q. 2000. μ-protocadherin, a novel developmentally regulated protocadherin with mucin-like domains. J. Biol. Chem. 275: 24622-24629.
- 2. 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., 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: Cdhr5 (mouse) mapping to 7 F5.

PRODUCT

 $\mu\text{-protocadherin}$ (m): 293T Lysate represents a lysate of mouse $\mu\text{-protocadherin}$ transfected 293T cells and is provided as 100 μg protein in 200 μI SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

APPLICATIONS

 $\mu\text{-protocadherin}$ (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive $\mu\text{-protocadherin}$ antibodies. Recommended use: 10-20 μI per lane.

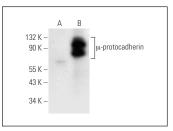
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

 μ -protocadherin (G-10): sc-398841 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse μ -protocadherin expression in μ -protocadherin transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-lgG κ BP-HRP: sc-516102 or m-lgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz MarkerTM Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



μ-protocadherin (G-10): sc-398841. 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.

PROTOCOLS

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