

μ -protocadherin (G-1): sc-271138

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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- Kostadinov, R., et al. 2005. GRSDB: a database of quadruplex forming G-rich sequences in alternatively processed mammalian pre-mRNA sequences. *Nucleic Acids Res.* 34: 119-124.
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CHROMOSOMAL LOCATION

Genetic locus: CDHR5 (human) mapping to 11p15.5.

SOURCE

μ -protocadherin (G-1) is a mouse monoclonal antibody raised against amino acids 126-350 mapping within an extracellular domain of μ -protocadherin of human origin.

RESEARCH USE

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

PRODUCT

Each vial contains 200 μ g IgG κ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

μ -protocadherin (G-1) is recommended for detection of μ -protocadherin of human origin by Western Blotting (starting dilution 1:100, 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.

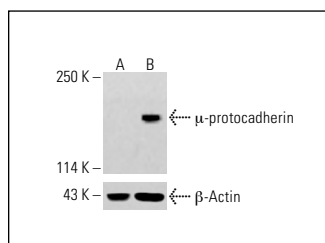
Molecular Weight of μ -protocadherin four isoforms: 110-220 kDa.

Positive Controls: μ -protocadherin (h): 293T Lysate: sc-112145 or chemically-treated HCT-116 whole cell lysate.

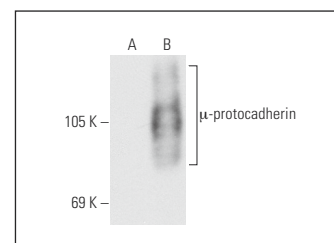
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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.

DATA



μ -protocadherin (G-1): sc-271138. Western blot analysis of μ -protocadherin expression in untreated (A) and chemically-treated (B) HCT-116 whole cell lysates. β -Actin (C4): sc-47778 used as loading control. Detection reagent used: m-IgG Fc BP-HRP: sc-525409.



μ -protocadherin (G-1): sc-271138. 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.