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16A (OB-Cadherin/Cadherin-11)

CATALOG NUMBER: MUB0306P
CLONE: 16A
SPECIES / ISOTYPE: mouse IgG1
PRODUCT FORM: purified monoclonal antibody

BACKGROUND

Cadherins constitute a family of transmembrane glycoproteins involved in Ca^{2+}-dependent cell-cell interactions. The members of this family are differentially expressed in various tissues. They function in the maintenance of tissue integrity and morphogenesis. The cadherins generally contain five extracellular repeats, a transmembrane domain and a cytoplasmic tail that binds to the catenin family of cytoskeletal anchoring proteins which also function as signal transducers. The extracellular domains are responsible for the specificity of homophilic interactions between cells expressing the same cadherin. Cadherins are divided into type I and type II subgroups. Type I cadherins include epithelial cadherin (E-cadherin, cadherin-1 or uvomorulin), neural cadherin (N-cadherin or cadherin-2), placental cadherin (P-cadherin or cadherin-3) and retinal cadherin (R-cadherin or cadherin-4). Kidney cadherin (K-cadherin or cadherin-6) and osteoblast cadherin (OB-cadherin or cadherin-11) are type II cadherins. The progression of carcinomas is associated with the loss of epithelial morphology and a concomitant acquisition of a more mesenchymal phenotype, which is thought to contribute to the invasive and/or metastatic behavior. A putative role for cadherin-11 in these late stages of tumor progression is based on the fact that migration of mesenchymal cells is facilitated when cadherin-11 is highly expressed.

SOURCE

16A is a mouse monoclonal IgG1 antibody obtained by fusion of SP2/0 mouse myeloma cells with spleen cells from a mouse immunized with affinity purified extracellular domain of human cadherin-11-GST fusion protein.

PRODUCT

Each vial contains 100 µl 1 mg/ml purified monoclonal antibody in PBS containing 0.09% sodium azide.

SPECIFICITY

16A recognizes the extracellular domain of cadherin-11.

16A is suitable for immunoblotting, immunocytochemistry and immunohistochemistry on frozen sections when using a PBS buffer containing 0.1 mM $CaCl_2$ and 0.1 mM $MgCl_2$. Optimal antibody dilution should be determined by titration; recommended range is 1:25 – 1:50 for immunohistochemistry with avidin-biotinylated horseradish peroxidase complex (ABC) as detection reagent, and 1:25 – 1:250 for immunoblotting applications.

SPECIES REACTIVITY

Human and rat.

STORAGE

Store at 4°C, or in small aliquots at –20°C.

REFERENCES

1. Bussemakers, M. J., Van Bokhoven, A., Tomita, K., Jansen, C. F., and Schalken, J. A. (2000). Complex cadherin expression in human prostate cancer cells, Int J Cancer *85*, 446-50.
2. Tomita, K., van Bokhoven, A., van Leenders, G. J., Ruijter, E. T., Jansen, C. F., Bussemakers, M. J., and Schalken, J. A. (2000). Cadherin switching in human prostate cancer progression, Cancer Res *60*, 3650-4.

Datasheet version: MUB_0306P_090604

WARNING and CAUTION

This product is intended FOR RESEARCH USE ONLY, and FOR TESTS IN VITRO, not for use in diagnostic or therapeutic procedures involving humans or animals.
This product contains sodium azide. To prevent formation of toxic vapors, do not mix with strong acidic solutions. To prevent formation of potentially explosive metallic azides in metal plumbing, always wash into drain with copious quantities of water.
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