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CDH2 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1395a

Product Information

Application	WB, IHC, FC, ICC, E
Primary Accession	P19022
Reactivity	Human, Mouse, Rat
Host	Mouse
Clonality	Monoclonal
Clone Names	5D5
Isotype	IgG1
Calculated MW	99809
Description	This gene is a classical cadherin from the cadherin superfamily. The encoded protein is a calcium dependent cell-cell adhesion glycoprotein comprised of five extracellular cadherin repeats, a transmembrane region and a highly conserved cytoplasmic tail. The protein functions during gastrulation and is required for establishment of left-right asymmetry. At certain central nervous system synapses, presynaptic to postsynaptic adhesion is mediated at least in part by this gene product.
Immunogen	Purified recombinant fragment of human CDH2 expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% sodium azide.

Additional Information

Gene ID	1000
Other Names	Cadherin-2, CDw325, Neural cadherin, N-cadherin, CD325, CDH2, CDHN, NCAD
Dilution	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 FC~~1/200 - 1/400 ICC~~N/A E~~N/A
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CDH2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CDH2

Synonyms	CDHN, NCAD
Function	Calcium-dependent cell adhesion protein; preferentially mediates homotypic cell-cell adhesion by dimerization with a CDH2 chain from another cell. Cadherins may thus contribute to the sorting of heterogeneous cell types. Acts as a regulator of neural stem cells quiescence by mediating anchorage of neural stem cells to ependymocytes in the adult subependymal zone: upon cleavage by MMP24, CDH2-mediated anchorage is affected, leading to modulate neural stem cell quiescence. Plays a role in cell-to-cell junction formation between pancreatic beta cells and neural crest stem (NCS) cells, promoting the formation of processes by NCS cells (By similarity). Required for proper neurite branching. Required for pre- and postsynaptic organization (By similarity). CDH2 may be involved in neuronal recognition mechanism. In hippocampal neurons, may regulate dendritic spine density.
Cellular Location	Cell membrane; Single-pass type I membrane protein. Cell membrane, sarcolemma {ECO:0000250|UniProtKB:P15116}. Cell junction. Cell surface {ECO:0000250|UniProtKB:P15116}. Cell junction, desmosome {ECO:0000250|UniProtKB:P15116}. Cell junction, adherens junction {ECO:0000250|UniProtKB:P15116}. Note=Colocalizes with TMEM65 at the intercalated disk in cardiomyocytes. Colocalizes with OBSCN at the intercalated disk and at sarcolemma in cardiomyocytes {ECO:0000250|UniProtKB:P15116}

References

1. J Biol Chem. 2007 Mar 16;282(11):8545-56. 2. Mol Cell Biochem. 2007 Aug;302(1-2):19-26. 3. Urol Oncol. 2010 Mar-Apr;28(2):180-8.

Images

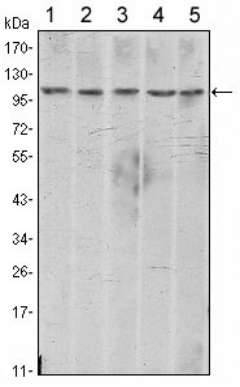

Figure 1: Western blot analysis using CDH2 mouse mAb against A431 (1), NIH/3T3 (2), Hela (3), C6 (4) and LNCap (5) cell lysate.

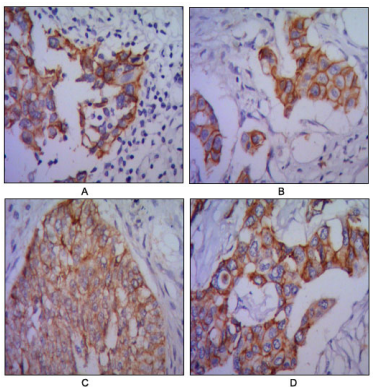

Figure 2: Immunohistochemical analysis of paraffin-embedded human lung cancer (A), colon cancer (B), ovarian cancer (C) and mammary cancer(D), using CDH2 mouse mAb with DAB staining.

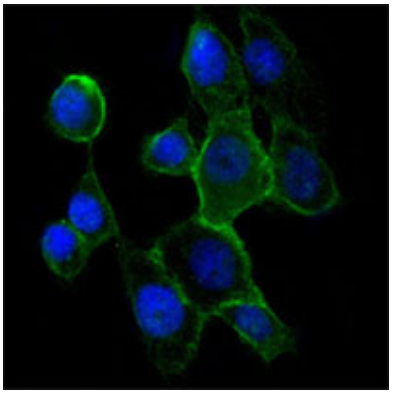

Figure 3: Immunofluorescence analysis of A431 cells using CDH2 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye.

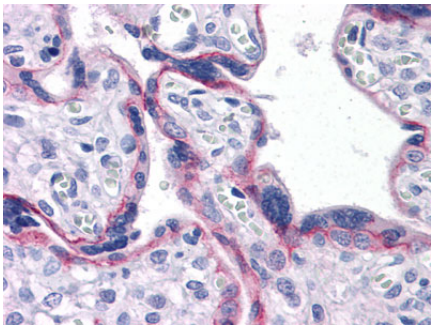

Figure 3: Immunohistochemical analysis of paraffin-embedded human Placenta tissues using CDH2 mouse mAb

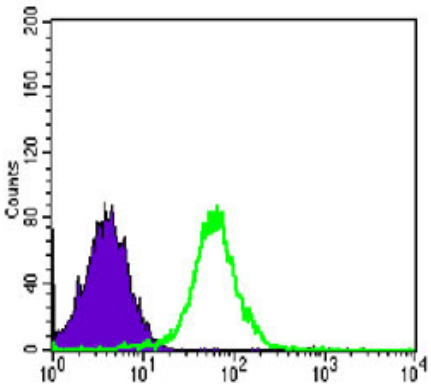

Figure 4: Flow cytometric analysis of PC-2 cells using CDH2 mouse mAb (green) and negative control (purple).