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CDH2 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1498b

Product Information

Application	WB, FC, E
Primary Accession	P19022
Other Accession	P33147, P20310, P79883, P39038, P55283, P24503, Q9Z1Y3, P15116, Q90275, P10288, P19534
Reactivity	Human
Predicted	Bovine, Chicken, Zebrafish, Mouse, Rat, Xenopus
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB13715
Calculated MW	99809
Antigen Region	744-772

Additional Information

Gene ID	1000
Other Names	Cadherin-2, CDw325, Neural cadherin, N-cadherin, CD325, CDH2, CDHN, NCAD
Target/Specificity	This CDH2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 744-772 amino acids from the C-terminal region of human CDH2.
Dilution	WB~~1:1000 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CDH2 Antibody (C-term) 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}

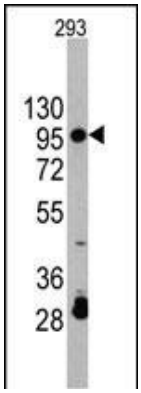
Background

CDH2 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.

References

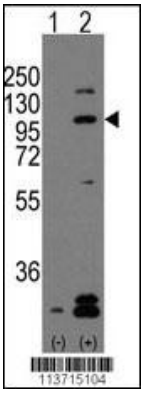
Reid R.A., Nucleic Acids Res. 18:5896-5896(1990).
Salomon D., J. Cell Sci. 102:7-17(1992).
Amanchy,R., J. Proteome Res. 4 (5), 1661-1671 (2005)

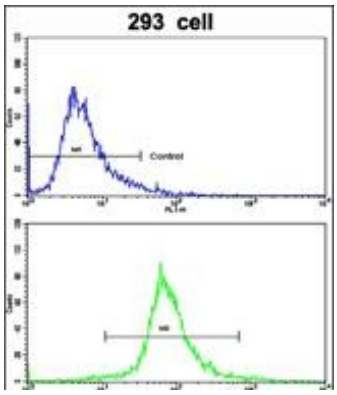
Images



Western blot analysis of CDH2 Antibody (C-term) (Cat.#AP1498b) in 293 cell line lysates (35ug/lane). CDH2(arrow) was detected using the purified Pab.

Western blot analysis of CDH2 (arrow) using rabbit polyclonal CDH2 Antibody (C-term) (Cat.#AP1498b).293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the CDH2 gene (Lane 2) (Origene Technologies).





Flow cytometric analysis of 293 cells using CDH2 Antibody (C-term)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Citations

- N-Glycosylation at Asn 402 Stabilizes N-Cadherin and Promotes Cell-Cell Adhesion of Glioma Cells.