

Mouse Anti-Human Cadherin 12, Type 2 Monoclonal Antibody

Cat. No. CAB11506MH Lot. No. (See product label)

SPECIFICATION

Product Overview Mouse Monoclonal Antibody to Human Cadherin 12, Type 2

Species Human

Source Mouse

Antigen Description

Cadherins (Calcium dependent adhesion molecules) are a class of transmembrane proteins. They play important roles in cell adhesion, ensuring that cells within tissues are bound together. They are dependent on calcium(Ca²⁺) ions to function. Mature cadherin proteins are composed of a large N-terminal extracellular domain, a single membrane-spanning domain, and a small highly conserved C-terminal cytoplasmic domain. Type II (atypical) cadherins are defined based on their lack of an HAV cell adhesion recognition sequence specific to type I cadherins. It has been observed that cells containing a specific cadherin subtype tend to cluster together to the exclusion of other types, both in cell culture and during development. Cadherin-12 also known as CDH12, is a type I classical cadherin from the cadherin superfamily of integral membrane proteins that mediate calcium-dependent cell-cell adhesion. Cadherin-12 appears to be expressed specifically in the brain and its temporal pattern of expression would be consistent with a role during a critical period of neuronal development, perhaps specifically during synaptogenesis.

Specificity

Human Cadherin-12 / CDH12. No cross-reactivity in ELISA with Human Cadherin-4; Human Cadherin-6; Human Cadherin-8; Human E-Cadherin; Human cell lysate (293 cell line)

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Immunogen	Recombinant Human Cadherin-12 / CDH12 Protein
Isotype	N/A
Clone	5I9H5
Applications	WB; ELISA
Dilution	Western blot: This antibody can be used at 1-2 µg/mL with the appropriate secondary reagents to detect Human CDH12 in WB. Using a DAB detection system, the detection limit for Human CDH12 is approximately 20 ng/lane under non-reducing conditions and 2 ng/lane under reducing conditions. ELISA: This antibody can be used at 0.5-1 µg/mL with the appropriate secondary reagents to detect Human CDH12. The detection limit for Human CDH12 is approximately 0.078 ng/well.
Preparation	This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, human cell-derived, recombinant Human Cadherin-12 / CDH12. The IgG fraction of the cell culture supernatant was purified by Protein A affinity chromatography.
Format	0.2 µm filtered solution in PBS with 5% trehalose
Storage	This antibody can be stored at 2-8 °C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 to -70°C. Preservative-Free. Sodium azide is recommended to avoid contamination (final concentration 0.05%-0.1%). It is toxic to cells and should be disposed of properly. Avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name [CDH12 cadherin 12, type 2 \(N-cadherin 2\) \[Homo sapiens \]](#)

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Official Symbol	CDH12
Synonyms	CDH12; cadherin 12, type 2 (N-cadherin 2); cadherin-12; Br cadherin; CDHB; Br-cadherin; N-cadherin 2; brain cadherin; brain-cadherin; neuronal cadherin 2; neural type cadherin 2; cadherin, neural type, 2; FLJ34857;
Gene ID	1010
mRNA Refseq	NM_004061
Protein Refseq	NP_004052
MIM	600562
UniProt ID	P55289
Chromosome Location	5p14.3
Pathway	Adherens junctions interactions, organism-specific biosystem; Cell junction organization, organism-specific biosystem; Cell-Cell communication, organism-specific biosystem; Cell-cell junction organization, organism-specific biosystem;
Function	calcium ion binding;

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