

## N-Cadherin

**Cat.No. 363 003; Polyclonal rabbit antibody, 50 µg specific antibody (lyophilized)**

### Data Sheet

Reconstitution/ Storage	50 µg specific antibody, lyophilized. Affinity purified with the immunogen. Rabbit serum albumin was added for stabilization. For reconstitution add 50 µl H <sub>2</sub> O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.
Applications	<b>WB:</b> 1 : 1000 (AP staining) <b>IP:</b> not tested yet <b>ICC:</b> 1 : 500 up to 1 : 1000 <b>IHC:</b> 1 : 500 (see remarks) <b>IHC-P/FFPE:</b> 1 : 500
Immunogen	Recombinant protein corresponding to AA 746 to 906 from mouse N-Cadherin (UniProt Id: P15116)
Reactivity	Reacts with: rat (Q9Z1Y3), mouse (P15116). Other species not tested yet.
Specificity	Recognizes N-cadherin. The antibody may crossreact to other cadherins due to sequence homology.
Remarks	<b>IHC:</b> Fix for 15 min with 4% PFA and 15% picric acid in PBS.

**TO BE USED IN VITRO / FOR RESEARCH ONLY**  
**NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS**

**N-cadherin** or **neural cadherin**, also referred to as **Cadherin 2**, **CDH 2** and **NCAD**, is a transmembrane protein that functions in calcium-dependent cell-cell adhesion. The extracellular region interacts with another N-cadherin molecule on an adjacent cell in an anti-parallel conformation. A repeated set of dimer interfaces forms a linear, adhesive "zipper" between cells. The C-terminal, cytoplasmic tail mediates binding to catenins, which in turn interact with the actin cytoskeleton. Cleavage of N-cadherin regulates adult neural stem cell functional quiescence.

### Selected References SYSY Antibodies

Choroid plexus epithelial cells express the adhesion protein P-cadherin at cell-cell contacts and syntaxin-4 in the luminal membrane domain.  
Christensen IB, Mogensen EN, Damkier HH, Praetorius J  
American journal of physiology. Cell physiology (2018) 314(5): C519-C533. **IHC-P; tested species: mouse**

### Selected General References

MT5-MMP regulates adult neural stem cell functional quiescence through the cleavage of N-cadherin.  
Porlan E, Martí-Prado B, Morante-Redolat JM, Consiglio A, Delgado AC, Kypta R, López-Otín C, Kirstein M, Fariñas I  
Nature cell biology (2014) 16(7): 629-38.

Sequential binding of calcium leads to dimerization in neural cadherin.  
Vunnam N, Pedigo S  
Biochemistry (2011) 50(14): 2973-82.

Structure-function analysis of cell adhesion by neural (N-) cadherin.  
Tamura K, Shan WS, Hendrickson WA, Colman DR, Shapiro L  
Neuron (1998) 20(6): 1153-63.

Structural basis of cell-cell adhesion by cadherins.  
Shapiro L, Fannon AM, Kwong PD, Thompson A, Lehmann MS, Grubel G, Legrand JF, Als-Nielsen J, Colman DR, Hendrickson WA  
Nature (1995) 374(6520): 327-37.

Neural cadherin: role in selective cell-cell adhesion.  
Miyatani S, Shimamura K, Hatta M, Nagafuchi A, Nose A, Matsunaga M, Hatta K, Takeichi M  
Science (New York, N.Y.) (1989) 245(4918): 631-5.