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y-Protocadherin

Cat.No. 190 103; 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 μ l H $_2$ O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.
Applications	WB: 1: 1000 (AP staining) IP: not tested yet ICC: 1: 500 IHC: 1: 500 IHC-P/FFPE: not tested yet
Immunogen	Recombinant protein corresponding to AA 808 to 931 from rat γ-Protocadherin
Reactivity	Reacts with: rat. Other species not tested yet.
Specificity	Detects different γ -protocadherins since they share the constant cytoplasmic tail. (K.O. verified)

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

Cadherins are a complex protein superfamily involved in many cellular processes including cell recognition, cell signaling, cell communication during embryogenesis, and the formation of neural circuits in the central nervous system. **Protocadherins** constitute the largest group within the cadherin superfamily and can be subdivided into three groups: \mathbf{a} -, \mathbf{p} - and \mathbf{v} -protocadherins. Genes for these subgroups are organized in closely related gene clusters and encode variable extracellular and transmembrane domains. The short cytosolic tails are constant and shared within one subgroup.

Selected References SYSY Antibodies

Phosphorylation of protocadherin proteins by the receptor tyrosine kinase Ret.

Schalm SS, Ballif BA, Buchanan SM, Phillips GR, Maniatis T

Proceedings of the National Academy of Sciences of the United States of America (2010) 107(31): 13894-9. **WB; tested species:**

Combinatorial effects of Alpha- and Gamma-Protocadherins on neuronal survival and dendritic self-avoidance.

Ing-Esteves S, Kostadinov D, Marocha J, Sing AD, Joseph KS, Laboulaye M, Sanes JR, Lefebvre JL

The Journal of neuroscience: the official journal of the Society for Neuroscience (2018): . WB; KO verified; tested species: mouse

Selected General References

Combinatorial expression of alpha- and gamma-protocadherins alters their presenilin-dependent processing.

Bonn S, Seeburg PH, Schwarz MK

Molecular and cellular biology (2007) 27(11): 4121-32.

Gamma protocadherin expression in the embryonic chick nervous system.

Cronin KD, Capehart AA

International journal of biological sciences (2006) 3(1): 8-11.

Cytoplasmic domain of protocadherin-alpha enhances homophilic interactions and recognizes cytoskeletal elements.

Triana-Baltzer GB, Blank M

Journal of neurobiology (2006) 66(4): 393-407.

Molecular evolution of cadherin-related neuronal receptor/protocadherin(alpha) (CNR/Pcdh(alpha)) gene cluster in Mus musculus subspecies.

Taguchi Y, Koide T, Shiroishi T, Yagi T

Molecular biology and evolution (2005) 22(6): 1433-43.

Molecular mechanisms governing Pcdh-gamma gene expression: evidence for a multiple promoter and cis-alternative splicing model

Wang X, Su H, Bradley A

Genes & development (2002) 16(15): 1890-905.

Protocadherin Pcdh2 shows properties similar to, but distinct from, those of classical cadherins.

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Journal of cell science (1995) 108 (Pt 12): 3765-73.