

Human P-Cadherin Antibody

Recombinant Monoclonal Mouse IgG₁ Clone # 104805R Catalog Number: MAB861R

DESCRIPTION	
Species Reactivity	Human
Specificity	Detects human P-Cadherin in direct ELISAs.
Source	Recombinant Monoclonal Mouse IgG ₁ Clone # 104805R
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human P-Cadherin Asp108-Gly654 Accession # CAA45177
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	1 μg/mL	See Below
Flow Cytometry	0.25 μg/10 ⁶ cells	See Below
Immunocytochemistry	5-25 μg/mL	See Below
Human P-Cadherin Sandwich Immunoassay		Reagent
ELISA Capture	2-8 μg/mL	Human P-Cadherin Antibody (Catalog # MAB861R)
ELISA Detection	0.1-0.4 μg/mL	Human P-Cadherin Biotinylated Antibody (Catalog # BAF861)
Standard		Recombinant Human P-Cadherin Fc Chimera (Catalog # 861-PC)
CyTOF-ready	Ready to be labeled u conjugation.	sing established conjugation methods. No BSA or other carrier proteins that could interfere with

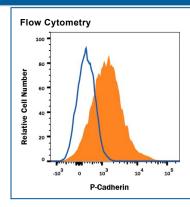
DATA

Western Blot KDa 25015010075-

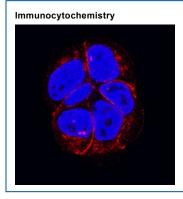
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Detection of Human P-Cadherin by Western Blot. Western blot shows lysates of ZR-75-1 human breast cancer cell line. PVDF membrane was probed with 1 µg/mL of Mouse Anti-Human P-Cadherin Monoclonal Antibody (Catalog # MAB861R) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for P-Cadherin at approximately 120 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.



Detection of P-Cadherin in A431 Human Cell Line by Flow Cytometry. A431 human carcinoma cell line was stained with Mouse Anti-Human P-Cadherin Monoclonal Antibody (Catalog # MAB861R, filled histogram) or isotype control antibody (Catalog # MAB002, open histogram), followed by APC-conjugated Anti-Mouse IgG F(ab')2 Secondary Antibody (Catalog # F0101B). Cells were stained in a buffer containing Ca2+ and Mg2+. View our protocol for Staining Membrane-associated Proteins.



P-Cadherin in MCF-7 Human Cell Line.
P-Cadherin was detected in immersion fixed MCF-7 human breast cancer cell line using Mouse Anti-Human P-Cadherin Monoclonal Antibody (Catalog # MAB861R) at 25 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights ™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for Fluorescent ICC Staining of Cells on Coversilps.

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Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.		
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.		
	*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C		
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles.		
	 12 months from date of receipt, -20 to -70 °C as supplied. 		
	 1 month, 2 to 8 °C under sterile conditions after reconstitution. 		
	 6 months, -20 to -70 °C under sterile conditions after reconstitution. 		

BACKGROUND

Placental (P) - Cadherin (PCAD) is a member of the Cadherin family of cell adhesion molecules. Cadherins are calcium-dependent transmembrane proteins, which bind to one another in a homophilic manner. On their cytoplasmic side, they associate with the three catenins, α , β , and γ (plakoglobin). This association links the cadherin protein to the cytoskeleton. Without association with the catenins, the cadherins are non-adhesive. Cadherins play a role in development, specifically in tissue formation. They may also help to maintain tissue architecture in the adult. P-Cadherin is a classical cadherin molecule. Classical cadherins consist of a large extracellular domain which contains DXD and DXNDN repeats responsible for mediating calcium-dependent adhesion, a single-pass transmembrane domain, and a short carboxy-terminal cytoplasmic domain responsible for interacting with the catenins. Human P-Cadherin is an 829 amino acid (aa) protein with a 26 aa signal sequence and an 803 aa propeptide. The mature protein begins at aa 108 and has a 548 aa extracellular region, a 23 aa transmembrane region, and a 151 aa cytoplasmic region. The human and mouse mature PCAD proteins share 87% homology.

References:

- 1. Shimoyama, Y. et al. (1989) J. Cell Biol. 109:1787.
- 2. Bussemakers, M.J.G. et al. (1993) Mol. Biol. Reports 17:123.
- 3. Overduin, M. et al. (1995) Science 267:386.
- 4. Takeichi, M. (1991) Science 251:1451.
- 5. Nose, A. et al. (1987) EMBO J. 6:3655.