Human/Mouse P-Cadherin Antibody

Monoclonal Rat IgG_{2A} Clone # 106020

Catalog Number: MAB761

R&D SYSTEMS a bio-techne brand

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects mouse P-Cadherin in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human (rh) N-Cadherin, recombinant mouse (rm) VE-Cadherin, rhCadherin-8, or rhCadherin-17 is observed.
Source	Monoclonal Rat IgG_{2A} Clone # 106020
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse P-Cadherin Glu100-Gly647 Accession # Q8BSL6
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.

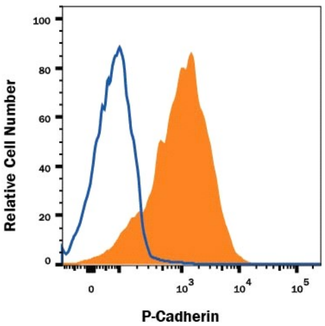
APPLICATIONS

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	Recombinant Mouse P-Cadherin Fc Chimera (Catalog # 761-MP)
Flow Cytometry	0.25 μg/10^6 cells	See Below
Immunocytochemistry	8-25 μg/mL	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

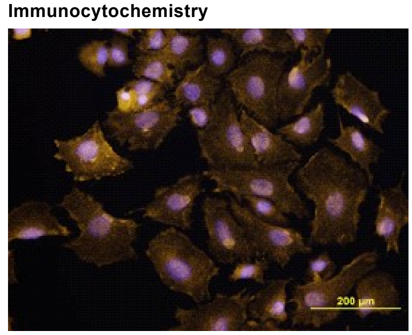
DATA

Flow Cytometry



Detection of P-Cadherin in A431 Human Cell Line by Flow Cytometry. A431 human epithelial carcinoma cell line was stained with Rat Anti-Human/Mouse P-Cadherin Monoclonal Antibody (Catalog # MAB761, filled histogram) or isotype control antibody (Catalog # MAB006, open histogram), followed by Allophycocyanin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0101B). Cells were stained in a buffer containing Ca^{2+} and Mg^{2+} . View our protocol for Staining Membrane-associated Proteins.

Immunocytochemistry



P-Cadherin in XB2 Mouse Cell Line. P-Cadherin was detected in immersion fixed XB2 mouse teratoma keratinocyte cell line using Anti-Human/Mouse P-Cadherin Monoclonal Antibody (Catalog # MAB761) at 10 μg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Rat IgG Secondary Antibody (yellow; Catalog # NL013) and counterstained with DAPI (blue). View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

PREPARATION AND STORAGE

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 Cadherin (P-Cadherin or PCAD) is a member of the cadherin family of cell adhesion molecules, designated CDH3. 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. Constitutive P-Cadherin expression is found in the epidermis, mesothelium, corneal epithelium, and uterine decidua. Mouse P-Cadherin is an 822 amino acid (aa) protein with a 27 aa signal sequence and a 795 aa propeptide. The mature protein begins at aa 100 and has a 542 aa extracellular region, a 27 aa transmembrane region, and a 153 aa cytoplasmic region.

References:

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

bio-techne®
Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 **Canada** TEL 855 668 8722 **China** TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449