

DESCRIPTION

Species Reactivity	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
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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
Flow Cytometry	0.25-1 µg/10 ⁶ cells	A431 human epithelial carcinoma cell line stained in buffer containing Ca ²⁺ and Mg ²⁺

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied.

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.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.