

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Cadherin-11 in direct ELISAs and Western blots. Does not cross-react with recombinant human (rh) Cadherin-4, rhCadherin-8, rhCadherin-12, rhCadherin-13, rhCadherin-17, rhE-Cadherin, rhN-Cadherin, rhP-Cadherin, or rhVE-Cadherin.
Source	Monoclonal Mouse IgG _{2B} Clone # 283416
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human Cadherin-11 Phe23-Thr617 Accession # AAA35622
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *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.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

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. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

The cadherin superfamily comprises a large number of membrane glycoproteins with one or more cadherin repeats, which are involved in Ca²⁺ dependent cell-cell adhesion. The family can be subdivided into several major subgroups, including the type I and type II classical cadherins, desmosomal cadherins, protocadherins, seven transmembrane (Flamingo) cadherins, FAT-family cadherins, T-cadherin and other unclassified cadherins (1). Cadherin-11, also known as OB-cadherin, is a type II classical cadherin. Classical cadherins are type I transmembrane proteins with an N-terminal extracellular domain containing five tandem cadherin repeats and a C-terminal cytoplasmic domain with a characteristic sequence for binding to catenins. Type I cadherins (E-, N-, P-, R-, M-, and EP-cadherin) differ from type II cadherins (cadherin-5 to -12, -18 to -20 and -22) by the presence of the HAV tripeptide motif in the most N-terminal cadherin repeat (2). Classic cadherins mediate cell-cell adhesion preferentially via homotypic interactions and form adherens junctions that have β-catenin and p120 (ctn) at the cytoplasmic side of the junction (3, 4). Homotypic cadherin interactions also transduce outside-in and inside-out cell signals. Cadherin signaling induces various cellular processes including cell motility, actin cytoskeleton reorganization, proliferation, and differentiation (3, 4). Cadherin-11 is expressed in a variety of normal tissues of mesodermal origin including areas of the kidney and brain, in normal osteoblasts, and in tumors of the stomach, kidney, colon, breast, and bone (osteosarcoma) (5, 6). It is also differentially expressed in the embryonic brain and may be important in regulating neural development. Human Cadherin-11 exhibits a unique mRNA splice site allowing for two forms of the protein to be expressed, a full-length 796 amino acid (aa) protein and a COOH terminus-truncated variant of 693 aa. The truncated variant has a unique cytoplasmic region due to a frameshift event (3). The full-length human and mouse Cadherin-11 share 97% homology at the aa sequence level.

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.