Technical Data Sheet

# Purified Mouse Anti-E-Cadherin

## Product Information

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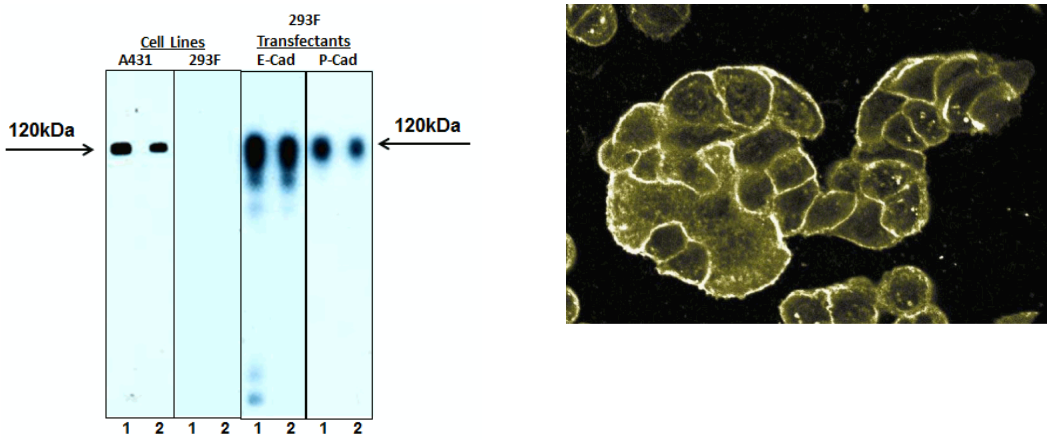
|---|---|
| **Material Number:** | **610182** |
| **Alternate Name:** | CD324; CDH1; CADH1; Cadherin-1; ECAD; CDHE; Arc-1; LCAM; UVO; Uvomorulin |
| **Size:** | 150 µg |
| **Concentration:** | 250 µg/ml |
| **Clone:** | 36/E-Cadherin |
| **Immunogen:** | Human E-Cadherin C-terminal Recombinant Protein |
| **Isotype:** | Mouse IgG2a, κ |
| **Reactivity:** | QC Testing: Human<br>Tested in Development: Mouse, Rat, Dog |
| **Target MW:** | 120 kDa |
| **Storage Buffer:** | Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide. |

## Description

E-Cadherin is a 120-kDa transmembrane glycoprotein that is localized in the adherens junctions of epithelial cells. There it interacts with the cytoskeleton through the associated cytoplasmic catenin proteins. In addition to being a calcium-dependent adhesion molecule, E-Cadherin is also a critical regulator of epithelial junction formation. Its association with catenins is necessary for cell-cell adhesion. These E-cadherin/catenin complexes associate with cortical actin bundles at both the zonula adherens and the lateral adhesion plaques. Tyrosine phosphorylation can disrupt these complexes, leading to changes in cell adhesion properties. E-Cadherin expression is often down-regulated in highly invasive, poorly differentiated carcinomas. Increased expression of E-Cadherin in these cells reduces invasiveness. Thus, loss of expression or function of E-Cadherin appears to be an important step in tumorigenic progression. The 36/E-Cadherin monoclonal antibody recognizes the cytoplasmic domain of E-Cadherin, regardless of phosphorylation status. The peptide immunogen was generated from human E-Cadherin aa. 735-883.

Note: Investigators are advised that this antibody has some degree of cross-reactivity to P-Cadherin.




***RIGHT IMAGE: Immunofluorescent staining of WIDR cells at 1:50 dilution using Purified Mouse Anti-E-Cadherin. LEFT IMAGE: Western blot analysis of E-Cadherin using Purified Mouse Anti-E-Cadherin (Cat. No. 610181/610182).*** *E-Cadherin is observable at 120kDa.* ***Left Panel:*** *A431 lysate (ATCC CRL-1555; Human epithelial carcinoma) was blotted at 1:10000 & 1:20000 (Lanes 1 & 2 respectively; 30 second exposure).* ***Middle Left Panel:*** *293F control lysate was blotted at 1:250 & 1:500 (Lanes 1 & 2 respectively; 30 second exposure).* ***Middle Right Panel:*** *293F cells transfected with human E-Cadherin (CDH1) was blotted at 1:2500 & 1: 5000 (Lanes 1 & 2 respectively; 5 second exposure).* ***Right Panel:*** *293 cells transfected with human P-Cadherin (CDH3) was blotted using Purified Mouse Anti-E-Cadherin (Cat. No. 610181/610182) at 1:2500 & 1: 5000 (Lanes 1 & 2 respectively; 5 second exposure).*

## Preparation and Storage

Store undiluted at -20°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

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## Application Notes

**Application**

| | |
|---|---|
| Western blot | Routinely Tested |
| Immunofluorescence | Tested During Development |
| Immunohistochemistry | Tested During Development |
| Immunoprecipitation | Tested During Development |

## Suggested Companion Products

| Catalog Number | Name | Size | Clone |
|---|---|---|---|
| 611447 | A431 Cell Lysate | 500 µg | (none) |
| 554002 | HRP Goat Anti-Mouse Ig | 1 mL | (none) |
| 554001 | FITC Goat Anti-Mouse Ig | 0.5 mg | Polyclonal |
| 612130 | FITC Mouse Anti- E-Cadherin | 50 µg | 36/E-Cadherin |
| 610181 | Purified Mouse Anti-E-Cadherin | 50 µg | 36/E-Cadherin |
| 610405 | Purified Mouse Anti-E-Cadherin | 150 µg | 34/E-Cadherin |

## Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

## References


Jaksits S, Kriehuber E, Charbonnier AS, Rappersberger K, Stingl G, Maurer D. CD34+ cell-derived CD14+ precursor cells develop into Langerhans cells in a TGF-beta 1-dependent manner. *J Immunol.* 1999; 163(9):4869-4877. (Clone-specific: Flow cytometry)

Miyoshi K, Shillingford JM, Smith GH, et al. Signal transducer and activator of transcription (Stat) 5 controls the proliferation and differentiation of mammary alveolar epithelium. *J Cell Biol.* 2001; 155(4):531-542. (Clone-specific: Immunohistochemistry)

Sheibani N, Sorenson CM, Frazier WA. Differential modulation of cadherin-mediated cell-cell adhesion by platelet endothelial cell adhesion molecule-1 isoforms through activation of extracellular regulated kinases. *Mol Biol Cell.* 2000; 11(8):2793-2802. (Clone-specific: Immunofluorescence, Western blot)

Takeichi M. The cadherins: cell-cell adhesion molecules controlling animal morphogenesis. *Development.* 1988; 102(4):639-655. (Biology)

Weng Z, Xin M, Pablo L, et al. Protection against anoikis and down-regulation of cadherin expression by a regulatable beta-catenin protein. *J Biol Chem.* 2002; 277(21):18677-18686. (Clone-specific: Immunofluorescence, Immunoprecipitation, Western blot)



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