Technical Data Sheet

FITC Mouse Anti- E-Cadherin

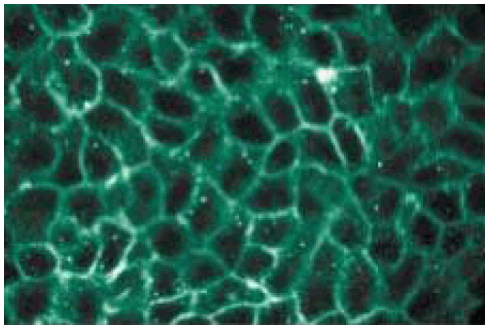
Product Information

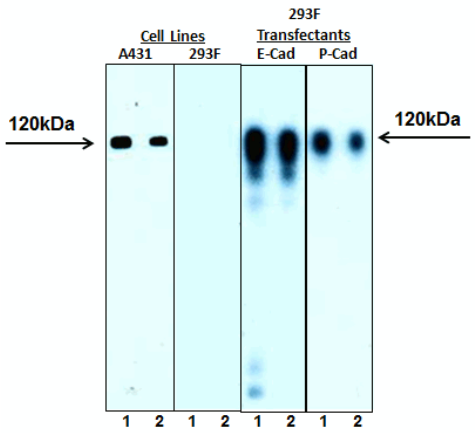
Material Number:	**612130**
Alternate Name:	CD324; CDH1; CADH1; Cadherin-1; ECAD; CDHE; Arc-1; LCAM; UVO; Uvomorulin
Size:	50 µg
Concentration:	250 µg/ml
Clone:	36/E-Cadherin
Immunogen:	Human E-Cadherin C-terminal Recombinant Protein
Isotype:	Mouse IgG2a, κ
Reactivity:	QC Testing: Human Tested in Development: Mouse, Rat, Dog
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.





LEFT IMAGE: Immunofluorescence staining of A431 cells.
RIGHT 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.
The antibody was conjugated with FITC under optimum conditions, and unreacted FITC was removed.

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Application Notes

Application

Immunofluorescence	Routinely Tested
Immunoprecipitation	Not Recommended
Immunohistochemistry	Not Recommended

Suggested Companion Products

Catalog Number	Name	Size	Clone
610181	Purified Mouse Anti-E-Cadherin	50 µg	36/E-Cadherin
612131	FITC Mouse Anti- E-Cadherin	150 µg	36/E-Cadherin
558050	Perm Buffer III	125 mL	(none)

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.
5. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.

References

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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)

Tamm I, Cardinale I, Kikuchi T, Krueger JG. E-cadherin distribution in interleukin 6-induced cell-cell separation of ductal breast carcinoma cells. *Proc Natl Acad Sci U S A.* 1994; 91(10):4338-4342. (Biology)

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