Mouse E-Cadherin APC-conjugated Antibody

Monoclonal Rat IgG_{2A} Clone # 114420

Catalog Number: FAB7481A

100 TESTS, 25 TESTS

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse E-Cadherin in direct ELISAs and Western blots.
Source	Monoclonal Rat IgG_{2A} Clone # 114420
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse E-Cadherin Asp157-Val709 (predicted) Accession # P09803
Conjugate	Allophycocyanin Excitation Wavelength: 620-650 nm Emission Wavelength: 660-670 nm
Formulation	Supplied 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.

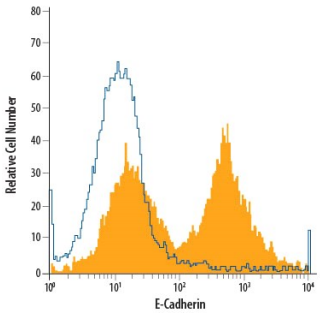
APPLICATIONS

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	10 µL/10^6 cells	See Below

DATA

Flow Cytometry



Detection of E-Cadherin in D3 Mouse Cell Line by Flow Cytometry. D3 mouse embryonic stem cell line was stained with Rat Anti-Mouse E-Cadherin APC-conjugated Monoclonal Antibody (Catalog # FAB7481A, filled histogram) or isotype control antibody (Catalog # IC006A, open histogram). Cells were stained in a buffer containing Ca^{2+} and Mg^{2+}. View our protocol for Staining Membrane-associated Proteins.

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

Epithelial (E) - Cadherin (ECAD), also known as cell-CAM120/80 in the human, uvomorulin in the mouse, Arc-1 in the dog, and L-CAM in the chicken, is a member of the cadherin family of cell adhesion molecules. 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. E-Cadherin may also play a role in tumor development, as loss of E-Cadherin has been associated with tumor invasiveness. E-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. A soluble form of E-Cadherin can be released from epithelial cell surfaces by proteolysis. E−Cadherin contains five extracellular calcium−binding domains of approximately 110 amino acids each.

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) **251**:1451.

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