Antibodies

Anti-Human E-Cadherin (CD324) Antibody, Clone 7G5D4

Mouse monoclonal antibody against human E-cadherin (CD324)

Catalog #100-1063 100 µL 1 mg/mL

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Scientists Helping Scientists™ | WWW.STEMCELL.COM
TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713
INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM
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Product Description

The 7G5D4 antibody reacts with E-cadherin (CD324), a transmembrane glycoprotein present in the adherens junction of epithelial cells. E-cadherin is a calcium-dependent cell-cell adhesion protein that consists of a large extracellular domain composed of five cadherin-motif subdomains, a single-pass transmembrane segment, and a short conserved cytoplasmic domain. As a key regulator of epithelial junction formation, E-cadherin associates with catenins and is necessary for cell-cell adhesion. The E-cadherin-catenin complex is associated with cortical actin bundles at both the zonula adherens and the lateral adhesion plaques. Disruption of this complex by tyrosine phosphorylation results in changes to cell adhesion properties. E-cadherin plays a central role in the growth and development of cells by controlling tissue architecture and maintaining tissue integrity. The expression of E-cadherin has been implicated in tumor metastasis.

Target Antigen Name:	E-cadherin (CD324)
Alternative Names:	Arc-1, CD324, CDH1, CDHE, E-cad, E-Cadherin, ECAD, LCAM, UVO
Gene ID:	999
Species Reactivity:	Human
Host Species:	Mouse
Clonality:	Monoclonal
Clone:	7G5D4
Isotype:	IgG1
Immunogen:	Recombinant human E-cadherin protein (Met1 - Ile707)
Conjugate:	Unconjugated

Applications

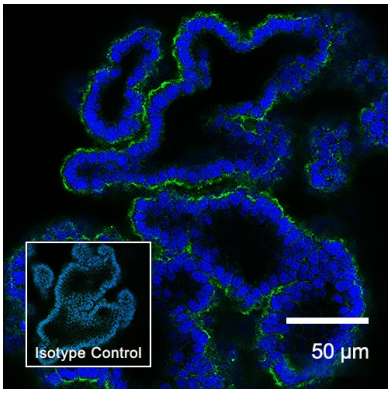
Verified:	ICC/IF
Special Applications:	This antibody clone has been verified for labeling E-cadherin-positive intestinal epithelial cells in human intestinal organoids grown using the STEMdiff™ Intestinal Organoid Kit (Catalog #05140).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence-activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IHC-P: Immunohistochemistry (paraffin-embedded); IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

Properties

Formulation:	Phosphate-buffered saline
Purification:	The antibody was purified by affinity chromatography.
Stability and Storage:	Product stable at 2 - 8°C for 1 month when stored undiluted. For longer-term storage, aliquot and store at -20°C. After thawing aliquots, do not re-freeze. Stable until expiry date (EXP) on label.
Directions for Use:	For ICC/IF, the suggested concentration of this antibody is 2.5 µg/mL. It is recommended that the antibody be titrated for optimal performance for each application.

Data



H9 human intestinal organoids were cultured using STEMdiff™ Intestinal Organoid Kit (Catalog #05140), then fixed and labeled with Anti-Human E-Cadherin (CD324) Antibody, Clone 7G5D4, followed by Goat Anti-mouse IgG (H+L) Antibody, Polyclonal, iFluor™ 488 (Catalog #100-1069). Nuclei were counter-stained with DAPI (blue). Inset shows cells labeled with Mouse IgG1, kappa Isotype Control Antibody, Clone MOPC-21 (Catalog #60070), followed by Goat Anti-Mouse IgG (H+L) Antibody, Polyclonal, iFluor™ 488 (with DAPI staining).

Related Products

For a complete list of antibodies, including other conjugates, sizes, and clones, as well as related products available from STEMCELL Technologies, visit www.stemcell.com/antibodies, or contact us at techsupport@stemcell.com.

References

1. Wang HD et al. (2004) CDH1 germline mutation in hereditary gastric carcinoma. World J Gastroenterol 10(21): 3088–93.
2. Cheng, L et al. (1996) Expression of E-cadherin in primary and metastatic prostate cancer. Am J Pathol 148(5): 1375–80.