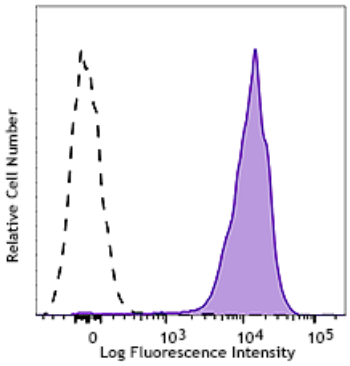
SONY

Product Data Sheet

APC/Fire™ 750 anti-mouse/human CD324 (E-Cadherin)

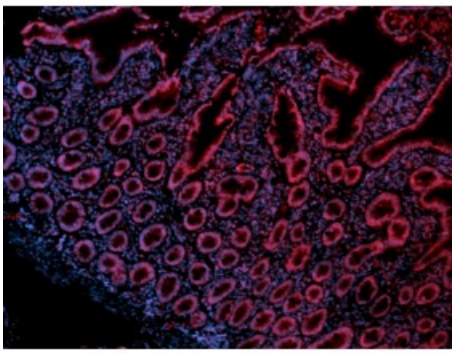
Catalog # / Size:	1336570 / 100 µg 1336565 / 25 µg
Clone:	DECMA-1
Isotype:	Rat IgG1, κ
Immunogen:	E-Cadherin extracellular domain
Reactivity:	Human, Mouse, Non-human primate, Other
Preparation:	The antibody was purified by affinity chromatography and conjugated with APC/Fire™ 750 under optimal conditions.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Workshop Number:	750 under optimal conditions.
Concentration:	0.2 mg/ml



MDCK epithelial cell line was stained with CD324 (clone DECMA-1) APC/Fire™ 750 (filled histogram) or rat IgG1, κ APC/Fire™ 750 isotype control (open histogram).

Applications:

Applications:	Flow Cytometry
Recommended Usage:	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤ 1.0 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application. * APC/Fire™ 750 has a maximum excitation of 650 nm and a maximum emission of 787 nm.
Application Notes:	Additional reported applications (for relevant formats) include: immunoprecipitation[1], Western Blotting[1], immunomicroscopy[3], and biological function[1,2].



Human paraffin-embedded intestine tissue slices were prepared with a standard protocol of deparaffinization and rehydration. Antigen retrieval was done with Sodium Citrate H.I.E.R. 1X at 95°C for 40 minutes. Tissue was washed with PBS/0.05% Tween 20 twice for five minutes, permeabilized with 0.5% Triton-X 100 for ten minutes and blocked with 5% FBS and 0.2% gelatin for 30 minutes. Then, the tissue was stained with 10 µg/mL of anti-human CD44 (clone IM7) Spark YG™ 570 (red) at 4°C overnight. Nuclei were counterstained with DAPI (blue). The image was captured with a 10X objective.

Application References:

1. Vestweber D, *et al.* 1985. *EMBO.* 4:3393. (IP, WB, FA)
2. Nakagawa M, *et al.* 2001. *J. Cell Sci.* 114:1829. (FA in canine cells)
3. Mohamet L, *et al.* 2010. *PLoS ONE.* 5:e12921. (IF)

Description: CD324, also known as E-cadherin, cadherin-1, CDH1, and UVO is a member of the cadherin superfamily. It is a calcium-dependent, transmembrane cell-cell adhesion glycoprotein composed of four extracellular cadherin repeats and a highly conserved cytoplasmic tail region. CD324 is widely expressed in epithelial cells in the colon, uterus, liver, keratinocytes, brain, heart, muscle, kidney, and pancreas as well as erythroid cells. CD324 functions as a cell adhesion molecule involved in development, bacterial pathogenesis, and tumor invasion. In bacterial pathogenesis, the ectodomain of CD324 mediates bacterial adhesion to mammalian cells, while the cytoplasmic domain is required for internalization. CD324 binds to the αEβ7 integrin to mediate cell adhesion and also interacts with a number of intracellular proteins including including erbin, ezrin, caspase-3, caspase-8, β-catenin, presenilin 1, and casein kinase II as well as other extracellular proteins including the EGF receptor.

Antigen References:

1. Overduin M, *et al.* 1995. *Science* 267:386.
2. Boggon TJ, *et al.* 2002. *Science* 296:1308.
3. Berx G, *et al.* 1995. *EMBO J.* 14:6107.
4. Perl AK, *et al.* 1998. *Nature* 392:190.