

Alexa Fluor® 647 anti-human CD326 (EpCAM) Antibody

Catalog# / Size	324212 / 100 tests
Clone	9C4
Regulatory Status	RUO
Other Names	Ep-CAM, tumor associated calcium signal transducer 1, epithelial cell surface antigen, epithelial glycoprotein 2, EGP2, adenocarcinoma associated antigen, TROP1
Isotype	Mouse IgG2b, κ
Description	CD326 is also known as Ep-CAM, tumor associated calcium signal transducer 1, epithelial cell surface antigen, epithelial glycoprotein 2, EGP2, adenocarcinoma associated antigen, and TROP1. CD326 is a type I transmembrane protein containing six disulfide bridges and one THYRO domain. This cell surface glycosylated 40 kD protein is highly expressed in bone marrow, colon, lung, and most normal epithelial cells and is expressed on carcinomas of gastrointestinal origin. Recently, it has been reported that CD326 expression occurs during the early steps of erythropoiesis. CD326 functions as a homotypic calcium-independent cell adhesion molecule and is believed to be involved in carcinogenesis by its ability to induce genes involved in cellular metabolism and proliferation. CD326 antigen is an immunotherapeutic target for the treatment of human carcinomas.

Product Details

Verified Reactivity	Human
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	DU.4475 breast carcinoma
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 647 under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	FC - Quality tested ICC - Verified SB - Reported in the literature, not verified in house
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 5 µL per million cells in 100 µL staining volume or 5 µL per 100 µL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application. * Alexa Fluor® 647 has a maximum emission of 668 nm when it is excited at 633nm / 635nm. Alexa Fluor® and Pacific Blue™ are trademarks of Life Technologies Corporation. View full statement regarding label licenses
Excitation Laser	Red Laser (633 nm)
Application Notes	Additional reported applications (for the relevant formats) include: immunofluorescence, immunohistochemistry ³ , and spatial biology (IBEX) ^{4,5} .
Additional Product Notes	Iterative Bleaching Extended multi-plexity (IBEX) is a fluorescent imaging technique capable of highly-multiplexed spatial analysis. The method relies on cyclical bleaching of panels of fluorescent antibodies in order to image and analyze many markers over multiple cycles of staining, imaging,

and, bleaching. It is a community-developed open-access method developed by the Center for Advanced Tissue Imaging (CAT-I) in the National Institute of Allergy and Infectious Diseases (NIAID, NIH).

Application References

(PubMed link indicates BioLegend citation)

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2. Schultz LD, *et al.* 2010. *P. Natl. Acad. Sci. USA* 107:13022. [PubMed](#)
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4. Radtke AJ, *et al.* 2020. *Proc Natl Acad Sci USA.* 117:33455-33465. (SB) [PubMed](#)
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Product Citations

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16. Liu X, *et al.* 2021. *iScience.* 24(6):102551. [PubMed](#)
17. Ebisudani T, *et al.* 2021. *Cell Reports.* 35(10):109218. [PubMed](#)

RRID

AB_756086 (BioLegend Cat. No. 324212)

Antigen Details

Structure	Type I transmembrane protein, contains six disulfide bridges, one THYRO domain, approximate molecular weight 40 kD.
Distribution	Highly expressed in bone marrow, colon, lung, and most normal epithelial cells. Also highly expressed on carcinomas of gastrointestinal origin. Expressed during early erythropoiesis.
Function	Homotypic calcium-independent cell adhesion. CD326 is believed to be involved in carcinogenesis by its ability to induce genes involved in cellular metabolism and proliferation.
Modification	Glycosylated.
Cell Type	Embryonic Stem Cells, Epithelial cells
Biology Area	Cell Biology, Immunology, Stem Cells
Molecular Family	Adhesion Molecules, CD Molecules
Antigen References	<ol style="list-style-type: none">1. Strnad J, <i>et al.</i> 1989. <i>Cancer Res.</i> 49:314.2. Munz M, <i>et al.</i> 2004. <i>Oncogene</i> 23:5748.3. Rao CG, <i>et al.</i> 2005. <i>Int. J. Oncol.</i> 27:49.
Gene ID	4072

Related Protocols

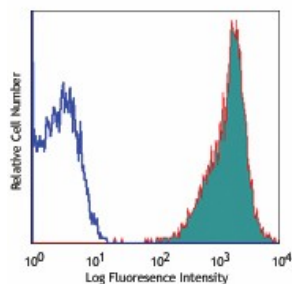
[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

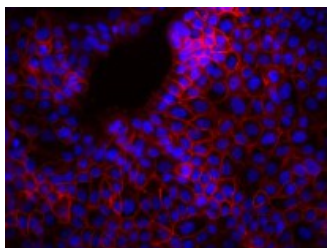
Purified anti-human CD326 (EpCAM), FITC anti-human CD326 (EpCAM), PE anti-human CD326 (EpCAM), APC anti-human CD326 (EpCAM), Alexa Fluor® 488 anti-human CD326 (EpCAM), Alexa Fluor® 647 anti-human CD326 (EpCAM), PerCP/Cyanine5.5 anti-human CD326 (EpCAM), Biotin anti-human CD326 (EpCAM), Pacific Blue™ anti-human CD326 (EpCAM), Brilliant Violet 421™ anti-human CD326 (EpCAM), PE/Cyanine7 anti-human CD326 (EpCAM), Brilliant Violet 605™ anti-human CD326 (EpCAM), Brilliant Violet 650™ anti-human CD326 (EpCAM), Alexa Fluor® 594 anti-human CD326 (EpCAM), Purified anti-human CD326 (EpCAM)

(Maxpar® Ready), PE/Dazzle™ 594 anti-human CD326 (EpCAM), APC/Fire™ 750 anti-human CD326 (EpCAM), Brilliant Violet 510™ anti-human CD326 (EpCAM), Brilliant Violet 785™ anti-human CD326 (EpCAM), Brilliant Violet 711™ anti-human CD326 (EpCAM), TotalSeq™-A0123 anti-human CD326 (Ep-CAM), APC/Cyanine7 anti-human CD326 (Ep-CAM), Alexa Fluor® 700 anti-human CD326 (EpCAM), TotalSeq™-C0123 anti-human CD326 (Ep-CAM), TotalSeq™-B0123 anti-human CD326 (Ep-CAM), PE/Cyanine5 anti-human CD326 (Ep-CAM)

Product Data



Human colon carcinoma cell line (HT29)
stained with 9C4 Alexa Fluor® 647



MCF7 breast cancer cell line was stained with 4 µg/mL anti-human CD326 Alexa Fluor® 647 and nuclear counterstain with DAPI. Images were acquired with a TE300 fluorescence microscope with a 20x objective. Data provided by: Er Liu and John Nolan, La Jolla Bioengineering Institute

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