abcam

Product datasheet

Anti-EpCAM antibody [VU-1D9] - BSA and Azide free ab212579

リコンビナント

画像数 5

製品の概要

製品名	Anti-EpCAM antibody [VU-1D9] - BSA and Azide free
製品の詳細	Mouse monoclonal [VU-1D9] to EpCAM - BSA and Azide free
由来種	Mouse
アプリケーション	**適用あり:** Flow Cyt, ICC/IF
種交差性	**交差種:** Human
免疫原	Tissue, cells or virus corresponding to Human EpCAM. Immunogen from small cell lung carcinoma cells. Database link: **P16422**
ポジティブ・コントロール	Flow Cyt: HT-29 cells. ICC/IF: HT-29, T47D and A431 cells.
特記事項	ab212579 is the carrier free version of **ab187372**. This product was switched from a hybridoma to a recombinant production format on 26th October 2021. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc. This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**.

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C.
バッファー	pH: 7.20 Constituent: 100% PBS
キャリア・フリー	はい
精製度	Protein A purified
ポリ/モノ	モノクローナル
クローン名	VU-1D9
アイソタイプ	IgG1

アプリケーション

The Abpromise guarantee **Abpromise保証は、次のテスト済みアプリケーションにおけるab212579の使用に適用されます**

アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
Flow Cyt		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.

ターゲット情報

機能	May act as a physical homophilic interaction molecule between intestinal epithelial cells (IECs) and intraepithelial lymphocytes (IELs) at the mucosal epithelium for providing immunological barrier as a first line of defense against mucosal infection. Plays a role in embryonic stem cells proliferation and differentiation. Up-regulates the expression of FABP5, MYC and cyclins A and E.
組織特異性	Highly and selectively expressed by undifferentiated rather than differentiated embryonic stem cells (ESC). Levels rapidly diminish as soon as ESC's differentiate (at protein levels). Expressed in almost all epithelial cell membranes but not on mesodermal or neural cell membranes. Found on the surface of adenocarcinoma.
関連疾患	Defects in EPCAM are the cause of diarrhea type 5 (DIAR5) [MIM:613217]. It is an intractable diarrhea of infancy characterized by villous atrophy and absence of inflammation, with intestinal epithelial cell dysplasia manifesting as focal epithelial tufts in the duodenum and jejunum. Defects in EPCAM are a cause of hereditary non-polyposis colorectal cancer type 8 (HNPCC8) [MIM:613244]. HNPCC is a disease associated with marked increase in cancer susceptibility. It is characterized by a familial predisposition to early-onset colorectal carcinoma (CRC) and extra-colonic tumors of the gastrointestinal, urological and female reproductive tracts. HNPCC is reported to be the most common form of inherited colorectal cancer in the Western world. Clinically, HNPCC is often divided into two subgroups. Type I is characterized by hereditary predisposition to colorectal cancer, a young age of onset, and carcinoma observed in the proximal colon. Type II is characterized by increased risk for cancers in certain tissues such as the uterus, ovary, breast, stomach, small intestine, skin, and larynx in addition to the colon. Diagnosis of classical HNPCC is based on the Amsterdam criteria: 3 or more relatives affected by

colorectal cancer, one a first degree relative of the other two; 2 or more generation affected; 1 or more colorectal cancers presenting before 50 years of age; exclusion of hereditary polyposis syndromes. The term 'suspected HNPCC' or 'incomplete HNPCC' can be used to describe families who do not or only partially fulfill the Amsterdam criteria, but in whom a genetic basis for colon cancer is strongly suspected. Note=HNPCC8 results from heterozygous deletion of 3-prime exons of EPCAM and intergenic regions directly upstream of MSH2, resulting in transcriptional read-through and epigenetic silencing of MSH2 in tissues expressing EPCAM.

配列類似性

Belongs to the EPCAM family.
Contains 1 thyroglobulin type-1 domain.

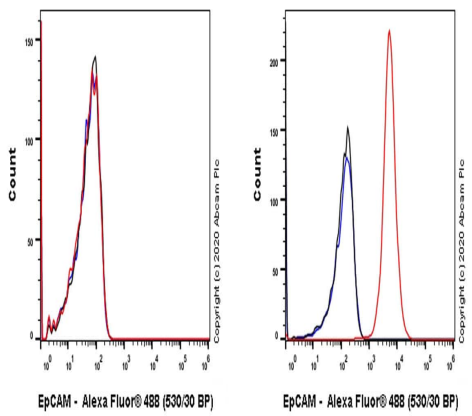
翻訳後修飾

Hyperglycosylated in carcinoma tissue as compared with autologous normal epithelia. Glycosylation at Asn-198 is crucial for protein stability.

細胞内局在

Lateral cell membrane. Cell junction > tight junction. Co-localizes with CLDN7 at the lateral cell membrane and tight junction.

画像

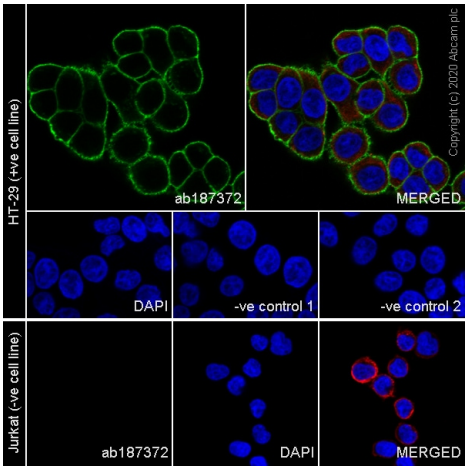


Flow Cytometry - Anti-EpCAM antibody [VU-1D9] - BSA and Azide free (ab212579)

This data was developed using the same antibody clone in a different buffer formulation (**ab187372**).

Flow cytometric analysis of Jurkat (Human T cell leukemia T lymphocyte, Left) / HT-29 (Human colorectal adenocarcinoma epithelial cell, Right) labeling EpCAM with **ab187372** at 1/1000 dilution, followed by secondary antibody **ab150113** (Goat anti mouse IgG (Alexa Fluor® 488)) at 1/2000 dilution (Red). Compared with a Mouse monoclonal IgG isotype control (Black) and an unlabelled control (Cell without incubation with primary antibody and secondary antibody) (Blue). Gated on viable cells.

Negative control: Jurkat (PMID: 29352248)

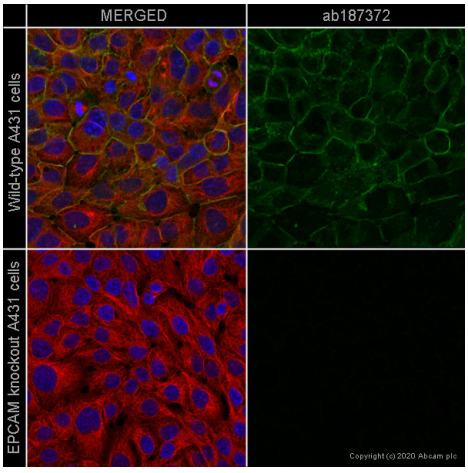


Immunocytochemistry/ Immunofluorescence - Anti-EpCAM antibody [VU-1D9] - BSA and Azide free (ab212579)

This data was developed using the same antibody clone in a different buffer formulation (**ab187372**).

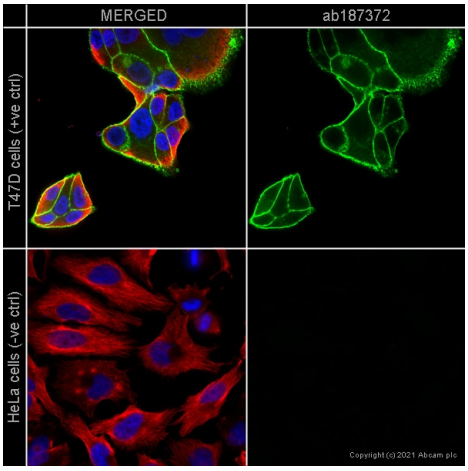
ab187372 staining EpCAM in HT-29 cell line (top panel) and Jurkat negative cells (bottom panel). The cells were fixed with 4% paraformaldehyde then permeabilized with 0.1% TritonX-100. The cells were then incubated with **ab187372** at 1/250 concentration and counterstained with **ab179513** (Anti-beta Tubulin rabbit monoclonal antibody) at 1/200 dilution, followed by secondary antibody **ab150113** (Goat Anti-Mouse IgG H&L (Alexa Fluor® 488)) at 1/1000 dilution (shown in green) and counterstained with **ab150080** (Goat Anti-Rabbit IgG H&L (Alexa Fluor® 594)) at 1/500 dilution (shown in red). Nuclear DNA was labelled in blue with DAPI.

Confocal image showing membranous staining in HT-29 cell line. Negative control: Jurkat (PMID: 29352248)



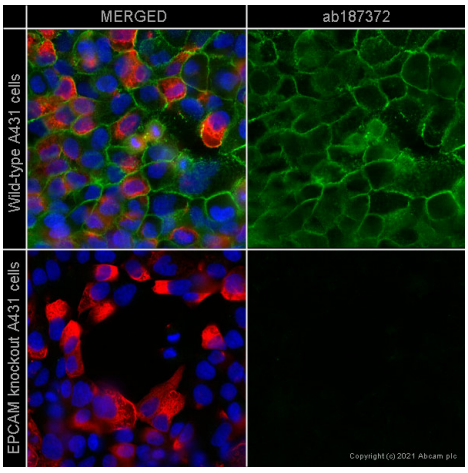
Immunocytochemistry/ Immunofluorescence - Anti-EpCAM antibody [VU-1D9] - BSA and Azide free (ab212579)

This data was developed using the same antibody clone in a different buffer formulation (**ab187372**). **ab187372** staining EpCAM in wild-type A431 cells (top panel) and EpCAM knockout A431 cells (bottom panel). The cells were fixed with 100% methanol (5 min) then permeabilized with 0.1% PBS-Tween for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with **ab187372** at 0.5µg/ml concentration and **ab6046** (Rabbit polyclonal to beta Tubulin) at 1/1000 dilution overnight at 4°C followed by a further incubation at room temperature for 1h with a goat secondary antibody to mouse IgG (Alexa Fluor® 488) (**ab150117**) at 2 µg/ml (shown in green) and a goat secondary antibody to rabbit IgG (Alexa Fluor® 594) (**ab150080**) at 2 µg/ml (shown in red). Nuclear DNA was labelled in blue with DAPI.
Image was taken with a confocal microscope (Leica-Microsystems TCS SP8).



Immunocytochemistry/ Immunofluorescence - Anti-EpCAM antibody [VU-1D9] - BSA and Azide free (ab212579)

This data was developed using the same antibody clone in a different buffer formulation (**ab187372**). **ab187372** staining EpCAM in T47D positive cells (top panel) and HeLa negative cells (bottom panel). The cells were fixed with 4% paraformaldehyde (10 min) then permeabilized with 0.1% PBS-Tween for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with **ab187372** at 1µg/ml concentration and **ab6046** (Rabbit polyclonal to beta Tubulin) at 1/1000 dilution overnight at 4°C followed by a further incubation at room temperature for 1h with a goat secondary antibody to mouse IgG (Alexa Fluor® 488) (**ab150117**) at 2 µg/ml (shown in green) and a goat secondary antibody to rabbit IgG (Alexa Fluor® 594) (**ab150080**) at 2 µg/ml (shown in red). Nuclear DNA was labelled in blue with DAPI. This antibody performed similarly using 100% methanol fixation. Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a single confocal section is shown.



Immunocytochemistry/ Immunofluorescence - Anti-EpCAM antibody [VU-1D9] - BSA and Azide free (ab212579)

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