abcam

ab316349

Anti-CEACAM5 antibody [CB30]

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	Preservative: 0.1% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Native Full Length Protein corresponding to Human CEACAM5. Database link P06731
Clone number	CB30
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	1/50 - 1/100
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/50 - 1/100
Notes	-

WB

Tested

Species	Human
Dilution info	0.003-1 µg/mL
Notes	-

Target data

See full target information CEACAM5

Function	Cell surface glycoprotein that plays a role in cell adhesion, intracellular signaling and tumor progression (PubMed:10864933, PubMed:10910050, PubMed:2803308). Mediates homophilic and heterophilic cell adhesion with other carcinoembryonic antigen-related cell adhesion molecules, such as CEACAM6 (PubMed:2803308). Plays a role as an oncogene by promoting tumor progression; induces resistance to anoikis of colorectal carcinoma cells (PubMed:10910050). (Microbial infection) Receptor for E.coli Dr adhesins. Binding of E.coli Dr adhesins leads to dissociation of the homodimer.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1 month
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Storage information	Avoid freeze / thaw cycle

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	CEACAM5 also known as Carcinoembryonic Antigen (CEA) or CD66e is a glycoprotein found mainly on the surface of epithelial cells. This protein has a mass of approximately 180 kDa. It gets expressed in a variety of tissues with high expression in the gastrointestinal tract including the colon and rectum. CEACAM5 is a member of the immunoglobulin superfamily and plays a role in cell adhesion influencing how cells stick to each other.
Biological function summary	CEACAM5 contributes to cellular processes involving cell adhesion and immune response modulation. This protein operates as part of a larger group of cell adhesion molecules and does not function as part of a complex. CEACAM5 can affect the interactions between cells and the extracellular matrix which has implications for tissue structuring and integrity. It helps the immune system recognize and respond to infectious agents or cellular anomalies.
Pathways	CEACAM5 involvement extends to immune response regulation and cell adhesion pathways. It interacts functionally with proteins like E-cadherin in these pathways which contribute to maintaining epithelial integrity. These pathways are critical for normal tissue maintenance and immune system function especially in mucosal surfaces where pathogen entry occurs. Understanding CEACAM5 interactions provides insight into cellular communication and adhesion mechanisms.
Associated diseases and disorders	CEACAM5 is associated with colorectal cancer and lung adenocarcinoma. Its overexpression and release into the bloodstream make it a popular biomarker for these diseases. CEACAM5 is used in clinical applications such as CEA ELISA assays for cancer detection and monitoring. In colorectal cancer CEACAM5 interacts with proteins like CEACAM6 to promote tumor invasiveness and metastasis. Anti-CEACAM5 therapeutics including antibody-drug conjugates (anti-CEACAM5 ADC) are being developed to target and treat associated malignancies.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

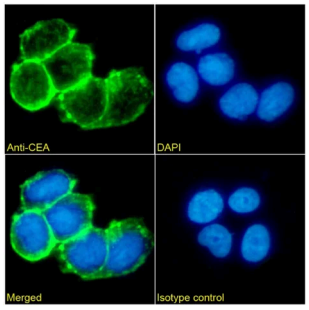
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

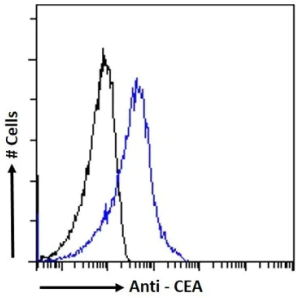
Full details and terms and conditions can be found here:
Terms & Conditions.

3 product images



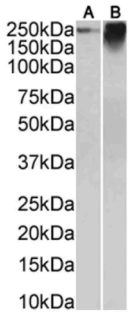
Immunocytochemistry/ Immunofluorescence - Anti-CEACAM5 Antibody [CB30] (ab316349)

Immunofluorescence analysis of paraformaldehyde fixed MCF7 (Human breast adenocarcinoma cell line) cells. Primary incubation 1hr (1:50-1:100 dilution) followed by Alexa Fluor® 488 secondary antibody (1:1000 dilution), showing membrane staining. The nuclear stain is DAPI (blue). Isotype control: Anti-Fluorescein followed by Alexa Fluor® 488 secondary antibody.



Flow Cytometry - Anti-CEACAM5 Antibody [CB30] (ab316349)

Blue line: Flow cytometric analysis of MCF7 (Human breast adenocarcinoma cell line) cells. Primary incubation 1hr (1:50-1:100 dilution) followed by Alexa Fluor 488 ® conjugated goat Anti-mouse IgG (1:1000 dilution). Black line: Anti-Unknown Specificity Isotype control.



Western blot - Anti-CEACAM5 Antibody [CB30] (ab316349)

(1 µg/ml) staining in MCF7 (A) cell lysate and (0.003 µg/ml) staining in human colorectal carcinoma (B) tissue lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.
Lane 1:
Western blot - Anti-CEACAM5 Antibody [CB30] (ab316349) at 1 µg/mL

Lane 2:
Western blot - Anti-CEACAM5 Antibody [CB30] (ab316349) at 0.003 µg/mL

Lane 1:
MCF7 cell lysate

Lane 2:
Human colorectal carcinoma tissue lysate

Developed using the ECL technique.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.