

Anti-CEA/CEACAM5 Antibody Picoband™

Catalog Number: A00356-2

About CEACAM5

CEA(Carcinoembryonic antigen) is a glycoprotein involved in cell adhesion. It is normally produced during fetal development, but the production of CEA stops before birth. Therefore, it is not usually present in the blood of healthy adults, although levels are raised in heavy smokers. CEA is a glycosyl phosphatidyl inositol(GPI)-cell surface anchored glycoprotein whose specialized sialofucosylated glycoforms serve as functional colon carcinoma L-selectin and E-selectin ligands, which may be critical to the metastatic dissemination of colon carcinoma cells. CEA and related genes make up the CEA family belonging to the immunoglobulin superfamily. In humans, the carcinoembryonic antigen family consists of 29 genes, 18 of which are normally expressed.

Overview

Product Name	Anti-CEA/CEACAM5 Antibody Picoband™
Reactive Species	Human
Description	Boster Bio Anti-CEA/CEACAM5 Antibody Picoband™ catalog # A00356-2. Tested in ELISA, Flow Cytometry, WB applications. This antibody reacts with Human.
Application	ELISA, Flow Cytometry, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Storage Instructions	At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing.
Host	Rabbit
Uniprot ID	P06731

Technical Details

Immunogen	E.coli-derived human CEA/CEACAM5 recombinant protein (Position: N553-G678).
Predicted Reactive Species	Chicken
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized

Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Western blot, 0.1-0.25 µg/ml, Human</p> <p>Flow Cytometry, 1-3 µg/1x1x10⁶ cells, Human</p> <p>Direct ELISA, 0.1-0.5 µg/ml, Human</p>

Anti-CEA/CEACAM5 Antibody Picoband™ (A00356-2) Images

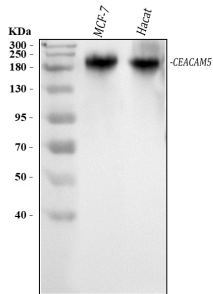


Figure 1. Western blot analysis of CEA/CEACAM5 using anti-CEA/CEACAM5 antibody (A00356-2).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human MCF-7 whole cell lysates,

Lane 2: human Hecate whole cell lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-CEA/CEACAM5 antigen affinity purified polyclonal antibody (Catalog # A00356-2) at 0.25 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for CEA/CEACAM5 at approximately 200 kDa. The expected band size for CEA/CEACAM5 is at 77,180-200 kDa.

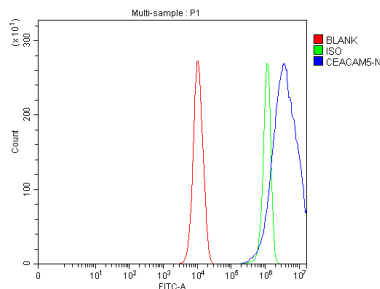


Figure 2. Flow Cytometry analysis of PC-3 cells using anti-CEA/CEACAM5 antibody (A00356-2).

Overlay histogram showing PC-3 cells stained with A00356-2 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-CEA/CEACAM5 Antibody (A00356-2, 1 ug/1x10⁶ cells) for 30 min at 20°C.

DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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