

anti-human CD66e (CEACAM5) PE-conjugated

PE-conjugated monoclonal antibody 3E10-3 to human CD66e (CEACAM5)

Cat-No: 21603664

500 µl

Clone: 3E10-3

Specificity: The antibody 3E10-3 recognizes the CEACAM5 (CEA) antigen, a 180 kDa GPI-anchored glycoprotein expressed on various human epithelial cells.

Isotype subclass: Mouse IgG1 kappa

Form: The purified antibody is conjugated with R-Phycoerythrin (R-PE) under optimum conditions. The reagent is adjusted for direct use. No reconstitution is necessary

Physical state: Liquid

Buffer/Additives/Preservative: PBS containing 1 % BSA and 0.09 % sodium azide (pH 7.2)

Expiration date: The reagent is stable until the expiry date stated on the vial label.

Storage conditions: Store at 4 °C. Avoid prolonged exposure to light

Application: Flow Cytometry

Background: **CD66e**, also known as CEACAM5 (Carcinoembryonales Antigen (CEA)-related Cell Adhesion Molecule 5, is a glycosyl phosphatidyl inositol- (GPI-) anchored glycoprotein. CEACAM5 and related genes make up the CEA family belonging to the immunoglobulin superfamily. CD66e is involved in cell adhesion. Additionally it serves as pathogen receptor (e.g. Helicobacter pylori, Neisseria, Moraxella, Candida albicans). Immunologically they are characterized as members of the CD66 cluster of differentiation. Antibodies to CEACAM5 are commonly used in immunohistochemistry to identify cells expressing the glycoprotein in tissue samples. However, CEACAM5 is also found in serum where it can be used as a tumor marker. In adults, CEACAM5 is primarily expressed in epithelia of the gastrointestinal tissue often together with CEACAM1, CEACAM6 and CEACAM7. Most antibodies to CEACAM5 tend to have some degree of cross-reactivity with other CEACAMs but 3E10-3 binds solely to CEACAM5.

References:

Hammarström S (April 1999). "The carcinoembryonic antigen (CEA) family: structures, suggested functions and expression in normal and malignant tissues*1". Seminars in Cancer Biology. 9 (2): 67–81.

Gebauer F et al.: Carcinoembryonic antigen-related cell adhesion molecules (CEACAM) 1, 5 and 6 as biomarkers in pancreatic cancer. PLoS One. 2014 Nov 19;9(11):e113023.

Singer BB: CEACAMs. Encyclopedia of Signaling Molecules 01/2016.

Warning: Sodium azide is harmful if swallowed (R22). Keep out of reach of children (S2). Keep away from food, drink and animal feeding stuff (S13). Wear suitable protective clothing (S36). If swallowed, seek medical advice immediately and show this container or label (S46). Contact with acids liberates very toxic gas (R32). Azide compounds should be flushed with large volumes of water during disposal to avoid deposits in lead or copper plumbing where explosive conditions can develop.

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