

anti-human CD66ade (CEACAM1/3/5)

Monoclonal antibody 18/20 to human CD66ade (CEACAM1/3/5)

Cat-No: 21605661

100 µg in 100 µl

Clone: 18/20

Specificity: The antibody 18/20 recognizes the CEACAM1, CEACAM3 and CEACAM5 antigens, with a molecular weight of 120 kDa, 35 kDa and 180 kDa, respectively. These proteins are highly glycosylated and expressed on various human cell types.

Isotype subclass: Mouse IgG1 kappa

Form: purified

Physical state: liquid

Buffer/Additives/Preservative: PBS containing 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. For long-term storage aliquot and store at -20°C. Avoid freeze/thaw cycles

Application: Flow Cytometry, ELISA, IP, WB, IHC (f/p), ICC

Background: **CEACAMs** (Carcinoembryonal Antigen (CEA)-related Cell Adhesion Molecules) are highly glycosylated membrane anchored proteins. CEACAM genes make up the CEA family belonging to the immunoglobulin superfamily. CEACAMs are involved in cell adhesion and cell-cell communication processes. Additionally, CEACAM1, 3 and 5 serve as pathogen receptor (e.g. for *Helicobacter pylori*, *Neisseria*, *Moraxella*, *Candida albicans*). Immunologically they are characterized as members of the CD66 cluster of differentiation. Antibodies to CEACAMs are commonly used in immunohistochemistry and flow cytometry to identify cells expressing the glycoprotein. However, CEACAM1, 5 and 6 are also found in serum where they can serve as tumor markers. In adults, CEACAM1 and 5 are expressed in some epithelia, CEACAM1 and 3 in granulocytes and CEACAM1 in defined microvascular endothelial cells. The mAb 18/20 binds to human CEACAM1 and with less affinity to CEACAM3 and CEACAM5.

References:

- 1.) 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.
- 2.) 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.
- 3.) 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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