

## anti-human CD66adecb (CEACAM1/3/5/6/8) APC-conjugated

APC-conjugated monoclonal antibody 6G5j to human CD66adecb (CEACAM1/3/5/6/8)

Cat-No: 21600666

500 µl

Clone: 6G5j

**Specificity:** The antibody 6G5j recognizes the CEACAM1, CEACAM3, CEACAM5, CEACAM6 and CEACAM8 antigens with a molecular weight of 120 kDa, 35 kDa, 180 kDa 90 kDa and 95 kDa, respectively. These proteins are highly glycosylated and expressed on various human cell types.

**Isotype subclass:** Mouse IgG1 kappa

**Form:** The purified antibody is conjugated with cross-linked Allophycocyanin (APC) 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:** The monoclonal antibody reacts with an antigen epitope shared by CD66a, b, c, d and e. CD66adecb are members of the CEA (carcinoembryonic antigen) family of the Ig superfamily.

**CEACAMs** (Carcinoembryonic antigen-related (CEA) 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. Except CEACAM8 they also serve as pathogen receptors (e.g. *Helicobacter pylori*, *Neisseria*, *Moraxella*, *Candida albicans*). Immunologically they are characterized as members of the CD66 cluster of differentiation. Antibodies against CEACAMs are commonly used in immunohistochemistry and flow cytometry to identify cells expressing the glycoprotein in tissue samples and cell culture. However, CEACAM1, 5 and 6 are also found in serum where they can be used as tumor markers. In adults, CEACAM1, 5, and 6 are expressed in some epithelia, CEACAM1, 3, 6 and 8 in granulocytes and CEACAM1 in defined microvascular endothelial cells.

**CD66a** (CEACAM1) is mainly expressed on granulocytes, binds to CD66a,c e and CD62E. **CD66b** (CEACAM8) is expressed exclusively on granulocytes and used as granulocyte marker. It has been reported to induce activation in neutrophils and to be involved in heterophilic adhesion with CD66c. **CD66c** (CEACAM6) is expressed on granulocytes and epithelial cells. The ligands of CD66c are CD66a-e, CD62E and Galectins. **CD66d** (CEACAM3) is expressed by neutrophils and serves as a microbial receptor for a wide range of microorganisms. **CD66e** molecule is also called (CEACAM5) is primarily found on epithelial cells. CD66e binds to CD66a, c and e.

### References:

Singer BB, Scheffrahn I, Kammerer R, Suttorp N, Ergun S, Slevogt H: Deregulation of the CEACAM expression pattern causes undifferentiated cell growth in human lung adenocarcinoma cells. PLoS One. 2010 Jan 18;5(1):e8747.

**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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