# Human CEACAM-6/CD66c Alexa Fluor® 750-conjugated Antibody

Monoclonal Mouse $IgG_{2A}$ Clone # 439424

Catalog Number: FAB3934S

100 µg

## DESCRIPTION

| | |
|---|---|
| **Species Reactivity** | Human |
| **Specificity** | Detects human CEACAM-6/CD66c in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human CEACAM-1, -3, or -5 is observed. |
| **Source** | Monoclonal Mouse $IgG_{2A}$ Clone # 439424 |
| **Purification** | Protein A or G purified from hybridoma culture supernatant |
| **Immunogen** | Mouse myeloma cell line NS0-derived recombinant human CEACAM-6/CD66c<br>Lys35-Gly320<br>Accession # P40199 |
| **Conjugate** | Alexa Fluor 750<br>Excitation Wavelength: 749 nm<br>Emission Wavelength: 775 nm |
| **Formulation** | Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

## APPLICATIONS

**Please Note:** *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

| | Recommended Concentration | Sample |
|---|---|---|
| **Flow Cytometry** | 0.25-1 µg/$10^6$ cells | Human whole blood granulocytes and HEK293 human embryonic kidney cell line transfected with human CEACAM-6/CD66c and eGFP |

## PREPARATION AND STORAGE

| | |
|---|---|
| **Shipping** | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| **Stability & Storage** | **Protect from light. Do not freeze.**<br>● 12 months from date of receipt, 2 to 8 °C as supplied. |

## BACKGROUND

Carcinoembryonic antigen-related cell adhesion molecule 6 (CEACAM-6), previously called nonspecific cross-reacting antigen (NCA) or CD66c, is one of seven human CEACAM family members within the immunoglobulin superfamily (1-4). In humans, CEACAMs include type I transmembrane proteins (CEACAM-1, -3, and -4) and Glycosylphosphatidylinositol (GPI)-linked molecules (CEACAM-5 through -8) (1). There is no human CEACAM-2. Human CEACAM-6 is a 90 kDa, GPI-linked membrane protein that contains a 34 amino acid (aa) signal sequence, a 286 aa extracellular domain (ECD), and a 24 aa hydrophobic C-terminal propeptide. The GPI membrane anchor is attached at the C-terminus following cleavage of the propeptide. CEACAM-6 contains one N-terminal V-type Ig-like domain (N domain), followed by two C2-type Ig-like domains (2-4). It shows considerable glycosylation, including (sialyl) $Lewis^X$, which mediates binding to E-Selectin, Galectins and some bacterial fimbrae (1, 2). Mature human CEACAM-6 shows 84%, 85%, 80%, 87% and 51% aa identity to the equivalent extracellular regions of human CEACAMs -1, -5 (CEA) and -8, rhesus CEACAM-2, and bovine CEACAM-6, respectively. CEACAM-6 is expressed by granulocytes and their precursors. Activation enhances surface expression by mobilizing CEACAM-6 from storage in azurophilic granules (5, 6). It often shows aberrant expression in acute lymphocytic leukemias (10). CEACAM-6 is also expressed in epithelia of various organs and is upregulated in pancreatic and colon adenocarcinomas and hyperplastic polyps (7, 8). Over-expression confers resistance to adhesion-related apoptosis (anoikis) in tumor cells (8, 9). CEACAM-6 is an intercellular adhesion molecule, forming both homotypic, and heterotypic bonds with CEACAM-1, -5 and -8 through interaction of the V-type Ig-like domains (11, 12). Cross-linking of neutrophil CEACAM-6 augments Integrin $\alpha_v\beta_3$ and $\beta_2$-mediated adhesion, apparently by Src and Caveolin-mediated inside-out Integrin activation (8, 13, 14).

**References:**


1. Beauchemin, N. *et al.* (1999) Exp. Cell Res. **252**:243.
2. Skubitz, K.M. *et al.* (1999) J. Biol. Regul. Homeost. Agents **13**:244.
3. Barnett, T. *et al.* (1988) Genomics **3**:59.
4. Tawaragi, Y. *et al.* (1988) Biochem. Biophys. Res. Comm. **150**:89.
5. Kuroki, M. *et al.* (1995) Immunol. Invest. **24**:829.
6. Ducker, T.P. and K.M. Skubitz (1992) J. Leukoc. Biol. **52**:11.
7. Scholzel, S. *et al.* (2000) Am. J. Pathol. **156**:595.
8. Duxbury, M.S. *et al.* (2004) J. Biol. Chem. **279**:23176.
9. Ilantzis, C. *et al.* (2002) Neoplasia **4**:151.
10. Kalina, T. *et al.* (2005) BMC Cancer **5**:38.
11. Oikawa, S. *et al.* (1992) Biochem. Biophys. Res. Commun. **186**:881.
12. Kuroki, M. *et al.* (2001) J. Leukoc. Biol. **70**:543.
13. Duxbury, M.S. *et al.* (2004) Biochem. Biophys. Res. Comm. **317**:133.
14. Skubitz, K.M. *et al.* (1999) J. Leukoc. Biol. **60**:106.




bio-techne®
Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449

# Human CEACAM-6/CD66c
# Alexa Fluor® 750-conjugated Antibody

Monoclonal Mouse $IgG_{2A}$ Clone # 439424

Catalog Number: FAB3934S
100 µg

## PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.



bio-techne®
**Global** bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
**USA** TEL 800 343 7475 **Canada** TEL 855 668 8722 **China** TEL +86 (21) 52380373
**Europe | Middle East | Africa** TEL +44 (0)1235 529449