

Antibodies against human CEACAM1

Monoclonal antibodies for the detection of A1/B-domains of the cancer-implicated adhesion-receptor-molecule CEACAM1

Invention

The present invention relates to antibodies that exhibit a high affinity and specificity for the A1/B-domains of CEACAM1.

Commercial Opportunities

CEACAM1 is an adhesion receptor molecule implicated in growth regulation and the development of cancer. It belongs to the family of carcinoembryonic antigens which forms a part of the immunoglobulin superfamily (IgSF). CEACAMs play a central role with respect to cell adhesion, differentiation, activation, proliferation, morphogenesis and apoptosis as well as receptors for various pathogens (e. g. bacteria). CEACAMs are structurally closely related: they feature the function triggering N-domain and a C-domain consisting of A- and B-domains. Due to the structural similarity it is very challenging to obtain antibodies against specific CEACAM1-domains. CEACAM1 has been detected at elevated levels in the surrounding tissue of tumors and the tumors themselves. It appears that CEACAM1 is a suitable biomarker for the diagnosis and staging of tumors.

The present invention relates to antibodies that exhibit a high affinity and mono-specificity for the A1/B-domains of human CEACAM1. Thus, they are suitable to detect the membrane anchored, the cleaved soluble CEACAM1 and most of its derivatives and may be used in various *in-vitro* techniques in cancer research, e.g. ELISA, WB, IHC, fluorescence microscopy and flow cytometry.

Current Status

A German patent application has been filed. On behalf of the University of Duisburg-Essen, PROvendis offers access to the antibody for commercial use.

Further Reading

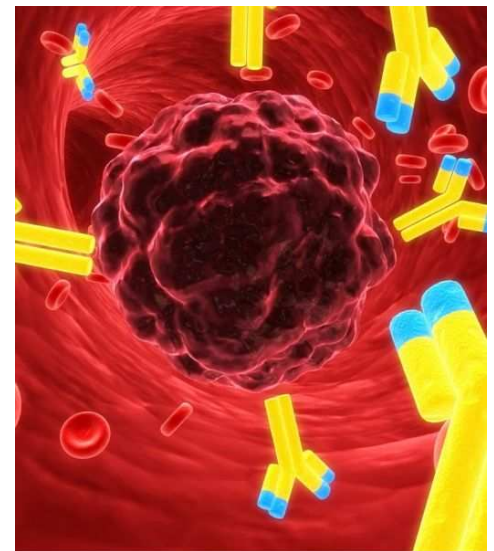
Singer BB (2005): CEACAM1. UCSD-Nature Molecule Pages (doi:10 1038/mp a003597 01)

Keyword: **CEACAM1, antibody, biomarker, cancer**

Developed by University Duisburg-Essen

PROvendis GmbH is the patent licensing agency for the universities of North Rhine-Westphalia, Germany.

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Benefits

- monoclonal antibodies directed against the A1/B-domains of CEACAM1
- high affinity and mono-specificity
- detects membrane anchored and soluble human CEACAM1 and most of its derivatives
- suitable for numerous applications in cancer research and diagnosis

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