

# pan CEA (4/3/17): sc-53824

## BACKGROUND

Carcinoembryonic antigen (CEA) is one of the most commonly used tumor markers in serum immunoassay determinations of carcinoma. Members of the CEACAM (carcinoembryonic antigen-related cell adhesion molecule) family contain a single N domain, with structural homology to the immunoglobulin variable domains, followed by a variable number of immunoglobulin constant-like A and/or B domains. CEACAMS, such as CEACAM1, CEACAM7, CD66C, CD66D and CD66E, have diverse roles within the cell, including roles in the differentiation and arrangement of tissue three-dimensional structure, angiogenesis, apoptosis, tumor suppression, metastasis and the modulation of innate and adaptive immune responses. The human CEACAM proteins are encoded by genes which are located within a 1.2 Mb cluster on the long arm of chromosome 19.

## REFERENCES

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- Skubitz, K.M. and Skubitz, A.P. 2008. Interdependency of CEACAM-1, -3, -6, and -8 induced human neutrophil adhesion to endothelial cells. *J. Transl. Med.* 6: 78.
- Lee, H.S., et al. 2008. CEACAM1 dynamics during neisseria gonorrhoeae suppression of CD4<sup>+</sup> T lymphocyte activation. *J. Immunol.* 180: 6827-6835.
- Gaur, S., et al. 2008. Altered splicing of CEACAM1 in breast cancer: identification of regulatory sequences that control splicing of CEACAM1 into long or short cytoplasmic domain isoforms. *Mol. Cancer* 7: 46.
- Slevogt, H., et al. 2008. CEACAM1 inhibits Toll-like receptor 2-triggered antibacterial responses of human pulmonary epithelial cells. *Nat. Immunol.* 9: 1270-1278.
- Nittka, S., et al. 2008. The CEACAM1-mediated apoptosis pathway is activated by CEA and triggers dual cleavage of CEACAM1. *Oncogene* 27: 3721-3728.
- Zalzali, H., et al. 2008. CEACAM1, a SOX9 direct transcriptional target identified in the colon epithelium. *Oncogene* 27: 7131-7138.

## SOURCE

pan CEA (4/3/17) is a mouse monoclonal antibody raised against pan CEA from partially purified liver metastases of colonic tumors of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

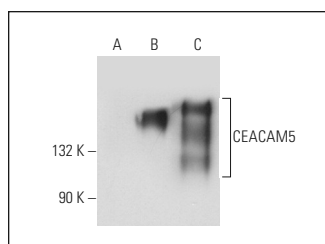
## APPLICATIONS

pan CEA (4/3/17) is recommended for detection of pan CEA of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

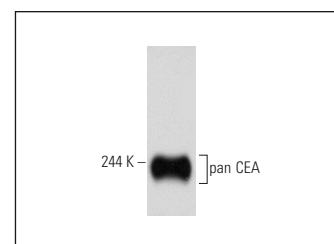
Molecular Weight of pan CEA: 80-200 kDa.

Positive Controls: COLO 320DM cell lysate: sc-2226, MCF7 whole cell lysate: sc-2206 or CEA (h2): 293T Lysate: sc-170027.

## DATA



pan CEA (4/3/17): sc-53824. Western blot analysis of CEACAM5 expression in non-transfected 293T: sc-117752 (A), human CEACAM5 transfected 293T: sc-170027 (B) and T84 (C) whole cell lysates.



pan CEA (4/3/17): sc-53824. Western blot analysis of pan CEA expression in MCF7 whole cell lysate.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.