Anti-Carcino Embryonic Antigen CEA Antibody 0807-10

Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB, IF-Cell, IHC-P, FC
Molecular Wt:	Predicted band size: 77 kDa

Description: The CD66 (carcinoembryonic antigen, CEA, biliary glycoprotein I, BGP-1, CEACAM) immunoglobulin superfamily of genes encode cell adhesion proteins, which are expressed at higher levels in tumorous tissues than in normal tissues. The human CD66 gene family is a diverse set of glycoproteins of epithelial and hematopoietic lineage that comprises 29 genes, which map to chromosome position 19q13.1-q13.2. CD66A, CD66B, CD66C, CD66D, CD66E and CD66F are the best characterized CD66 antigens, and CD66A-D expression upregulates on the surface of granulocytes upon stimulation. Certain CD66 family members mediate homotypic and heterotypic intercellular adhesion events. CD66E, also known as CEA, is a well known tumor marker and a heavily glycosylated GPI-linked cell surface molecule.

Immunogen: Synthetic peptide within Human CEA aa 153-216.

Positive control: MCF-7 cell lysate, SK-Br-3, SW620, human liver cancer tissue, human colon cancer tissue, HepG2.

Subcellular location: Cell membrane, Membrane.

Database links: SwissProt: P06731 Human

Recommended Dilutions:

WB	1:1,000-1:2,000
IF-Cell	1:50-1:200
IHC-P	1:50-1:200
FC	1:50-1:100

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 25% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Immunogen affinity purified.

Images

Fig1: Western blot analysis of Carcino Embryonic Antigen CEA on MCF-7 cell lysate. Proteins were transferred to a PVDF membrane and blocked with 5% BSA in PBS for 1 hour at room temperature. The primary antibody was used at a 1/500 dilution in 5% BSA at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:5,000 dilution was used for 1 hour at room temperature.

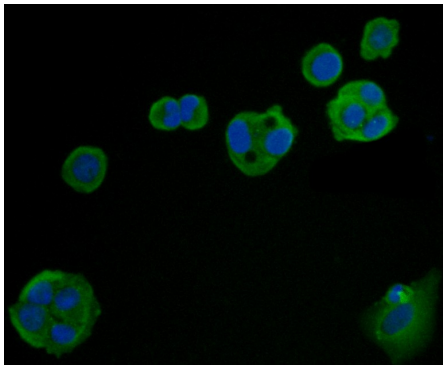

Fig2: ICC staining Carcino Embryonic Antigen CEA in SK-Br-3 cells (green). Formalin fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature and blocked with 1% Blocker BSA for 15 minutes at room temperature. Cells were probed with Carcino Embryonic Antigen CEA polyclonal antibody at a dilution of 1/200 for at least 1 hour at room temperature, washed with PBS. Alexa Fluor™ 488 Goat anti-Rabbit IgG was used as the secondary antibody at 1/100 dilution. The nuclear counter stain is DAPI (blue).

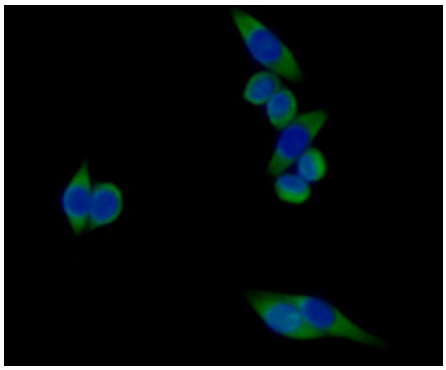

Fig3: ICC staining Carcino Embryonic Antigen CEA in SW620 cells (green). Formalin fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature and blocked with 1% Blocker BSA for 15 minutes at room temperature. Cells were probed with Carcino Embryonic Antigen CEA polyclonal antibody at a dilution of 1/200 for at least 1 hour at room temperature, washed with PBS. Alexa Fluor™ 488 Goat anti-Rabbit IgG was used as the secondary antibody at 1/100 dilution. The nuclear counter stain is DAPI (blue).

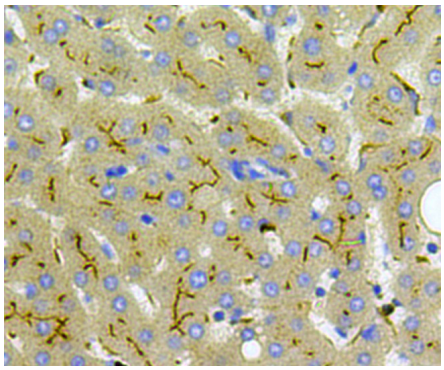

Fig4: Immunohistochemical analysis of paraffin-embedded human liver cancer tissue using anti-Carcino Embryonic Antigen CEA antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes.The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the antibody (0807-10) at 1/100 dilution, for 30 minutes at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chrogen. Counter stained with hematoxylin and mounted with DPX.

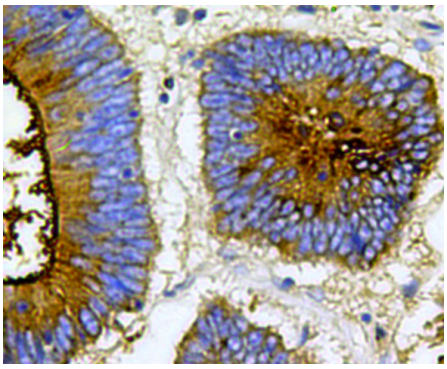

Fig5: Immunohistochemical analysis of paraffin-embedded human colon cancer tissue using anti-Carcino Embryonic Antigen CEA antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes.The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the antibody (0807-10) at 1/100 dilution, for 30 minutes at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chrogen. Counter stained with hematoxylin and mounted with DPX.

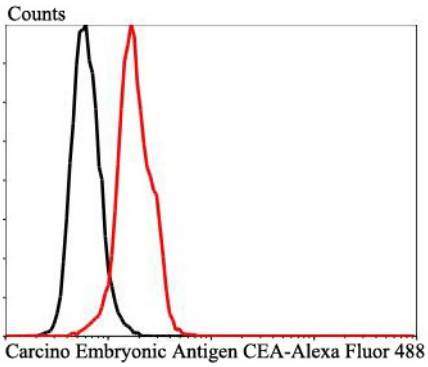

Fig6: Flow cytometric analysis of Carcino Embryonic Antigen CEA was done on HepG2 cells. The cells were fixed, permeabilized and stained with Carcino Embryonic Antigen CEA antibody at 1/100 dilution (red) compared with an unlabelled control (cells without incubation with primary antibody; black). After incubation of the primary antibody on room temperature for an hour, the cells was stained with a Alexa Fluor™ 488-conjugated goat anti-rabbit IgG Secondary antibody at 1/500 dilution for 30 minutes.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Schrewe H et al. Cloning of the complete gene for carcinoembryonic antigen: analysis of its promoter indicates a region conveying cell type-specific expression. Mol Cell Biol 10:2738-2748 (1990).
2. Hirovuki O et al. Preoperative serum CEA level is predictive for patient outcome in case of non-small cell lung cancer, especially squamous cell carcinoma. Yokohama Med 56(5/6):541-546 (2005).