

# Active Carcinoembryonic Antigen (CEA) Instruction Manual

**SBPA092Hu04**

**Homo sapiens (Human)**

**Buffer Formulation**

20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA,  
1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.

**Traits**

Freeze-dried powder

**Purity**

> 95%

**Isoelectric Point**

6.7

**Applications**

Cell culture; Activity Assays.

**ACTIVITY TEST**

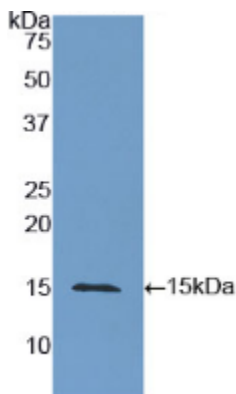


Figure. Western Blot

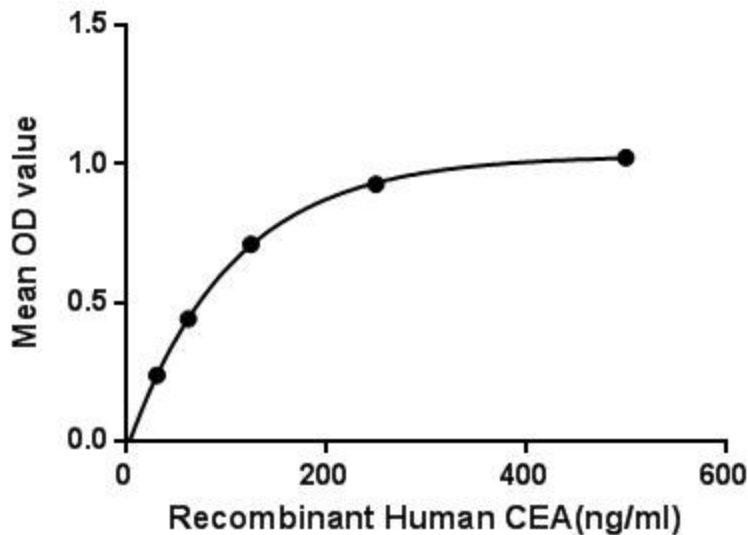


Figure. The binding activity of CEA with CEACAM6.

Carcinoembryonic antigen (CEA) describes a set of highly related glycoproteins involved in cell adhesion. CEA is normally produced in gastrointestinal tissue during fetal development, but the production stops before birth. CEA are glycosyl phosphatidyl inositol (GPI) cell-surface-anchored glycoproteins whose specialized sialofucosylated glycoforms serve as functional colon carcinoma L-selectin and E-selectin ligands. CEA levels are raised in some types of cancer, which means that it can be used as a tumor marker in clinical tests. Besides, Carcinoembryonic Antigen Related Cell Adhesion Molecule 6 (CEACAM6) has been identified as an interactor of CEA, thus a binding ELISA assay was conducted to detect the interaction of recombinant human CEA and recombinant human CEACAM6. Briefly, CEA were diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to CEACAM6-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-CEA pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50µL stop solution to the wells and read at 450nm immediately. The binding activity of CEA and CEACAM6 was shown in Figure 1, and this effect was in a dose dependent manner.

## USAGE

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

## STORAGE

Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.

## **STABILITY**

The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

### **Image**

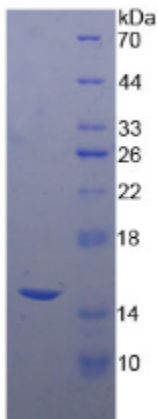


Figure. SDS-PAGE

### **[IMPORTANT NOTE]**

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.