

Carcinoembryonic Antigen (CEA) Active Protein | CEA active protein

Active Carcinoembryonic Antigen (CEA)

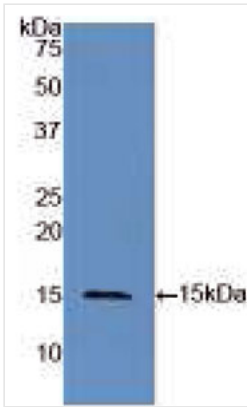
CATALOG # AAA149229	HOST E. coli	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

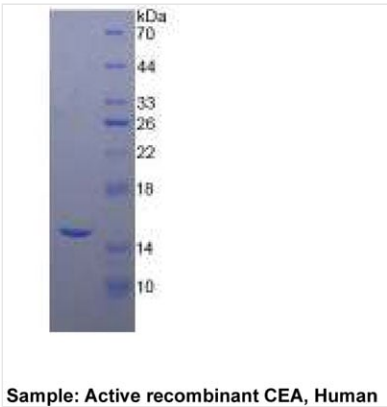
Carcinoembryonic Antigen (CEA); Active Carcinoembryonic Antigen (CEA); CEA active protein

PRODUCT SPECIFICATIONS

Host	E. coli
Purity/Purification	>95%
Form/Format	20mM Tris, 150mM NaCl, pH8.0, containing 0.01% sarcosyl and 5% trehalose.
Concentration	Original Concentration: 50ug/mL (varies by lot)
Applicable Applications for CEA active protein	Activity Assay, Cell Culture
Organism Species	Homo sapiens (Human)
Source	Prokaryotic expression.
Residues	Ser448~Gly572
Tags	N-terminal His-tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method).
Predicted isoelectric point	6.7
Usage	Reconstitute in ddH2O to a concentration of 0-0.5 mg/mL. Do not vortex.
Preparation and Storage	Storage: Avoid repeated freeze/thaw cycles. Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. Stability Test: 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 degree 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.

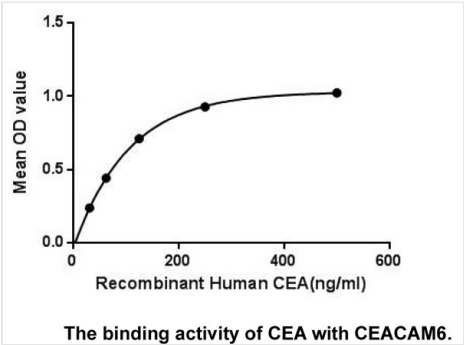


WB (Western Blot)
Western Blot Sample: Recombinant CEA, Human Antibody: Rabbit Anti-Human CEA Ab



Sample: Active recombinant CEA, Human

SDS-PAGE
Sample: Active recombinant CEA, Human



The binding activity of CEA with CEACAM6.

Sequence

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IDGNIQQHTQ  ELFISNITEK  NSGLYTCQAN  NSASGHSRTT  VKTITVSDEL  SWL
PKPSSISNNS  KPVEDKDAVA  FTCEPEAQNT  TYLWVNGQS  LPVSPRLQLS
NGNRTLTLFN  VTRNDARAYV  CG
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Bioactivity
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 degree 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 degree C. Finally, add 50uL 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.

ADDITIONAL INFORMATION

Product Categories/Family for CEA active protein	Tumor immunity; Gastroenterology
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NCBI AND UNIPROT INFORMATION

NCBI GI #	317373456
NCBI GeneID	1048
UniProt Accession #	P06731
Molecular Weight	Predicted Molecular Mass: 15.0kDa Accurate Molecular Mass: 14kDa as determined by SDS-PAGE reducing conditions.

NCBI Official Full Name	Carcinoembryonic antigen-related cell adhesion molecule 5
NCBI Official Synonym Full Names	carcinoembryonic antigen related cell adhesion molecule 5
NCBI Official Symbol	CEACAM5
NCBI Official Synonym Symbols	CEA; CD66e
NCBI Protein Information	carcinoembryonic antigen-related cell adhesion molecule 5
UniProt Protein Name	Carcinoembryonic antigen-related cell adhesion molecule 5
UniProt Gene Name	CEACAM5
UniProt Synonym Gene Names	CEA; CEA
UniProt Entry Name	CEAM5_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/e-coli-active-protein/carcinoembryonic-antigen-cea/149229>