

Carcinoembryonic Antigen Active Protein | CEA active protein

Active Carcinoembryonic Antigen (CEA)

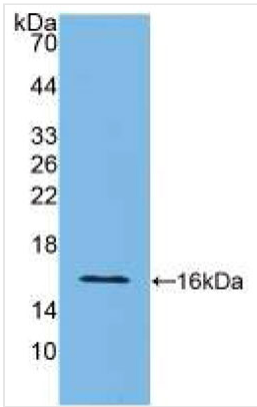
CATALOG # AAA150079	HOST E. coli	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

Carcinoembryonic Antigen; Active Carcinoembryonic Antigen (CEA); CD66E; CD66; CEACAM5; Carcinoembryonic Antigen-related Cell Adhesion Molecule 5; CEA active protein

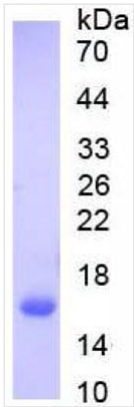
PRODUCT SPECIFICATIONS

Host	E. coli
Purity/Purification	>98%
Form/Format	20mM Tris, 150mM NaCl, pH8.0, containing 0.01% skl 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	Ala566~Gly698
Tags	N-terminal His-tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method).
Predicted isoelectric point	5.9
Phenomenon explanation	The possible reasons that the actual band size differs from the predicted are as follows: 1. Splice variants: Alternative splicing may create different sized proteins from the same gene. 2. Relative charge: The composition of amino acids may affects the charge of the protein. 3. Post-translational modification: Phosphorylation, glycosylation, methylation etc. 4. Post-translation cleavage: Many proteins are synthesized as pro-proteins, and then cleaved to give the active form. 5. Polymerization of the target protein: Dimerization, multimerization etc.
Usage	Reconstitute in ddH2O to a concentration of 0-0.05mg/mL. Do not vortex.
Preparation and Storage	Storage: Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°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°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.



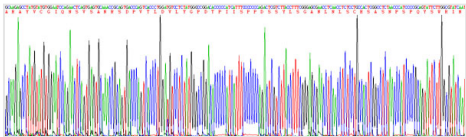
WB (Western Blot)

Figure 4. Western BlotSample: Active recombinant CEA, HumanAntibody: Rabbit Anti-Human CEA Ab



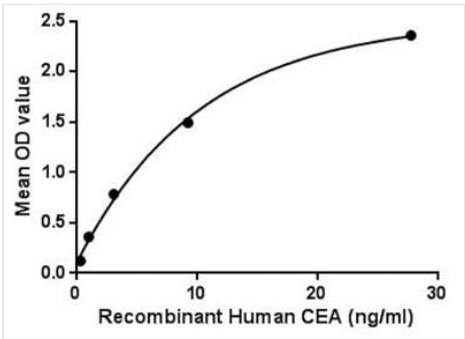
SDS_PAGE

Figure 3. SDS-PAGESample: Active recombinant CEA, Human



Gene Sequencing

Figure.2 Gene Sequencing (Extract



Bioactivity

Carcinoembryonic antigen (CEA) which are characterized as members of the CD66 cluster of differentiation have highly related glycoproteins involved in cell adhesion. It also can be used as a tumor marker in clinical tests. 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. Besides, Galectin 4 (GAL4) 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 GLA4. Briefly, CEA were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to GLA4-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 GLA4 was shown in Figure 1, and this effect was in a dose dependent manner.

ARAYV CGIQNSVSAN RSDPVTLDVL YGPDTPPIISP
PDSSYLSGAN LNLSCSASN PSPQYSWRIN GIPQHTQVL FIAKITPNNN
GTYACFVSNL ATGRNNSIVK SITVSASGTS PGLSAGATVG IMIGVLVG

Sequence

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: 16kDa as determined by SDS-PAGE reducing conditions.
NCBI Official Full Name	Carcinoembryonic antigen-related cell adhesion molecule 5
NCBI Official Synonym Full Names	CEA 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.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/e-coli-cea-active-protein/carcinoembryonic-antigen/150079>