

Complement Component 3 (C3) Active Protein | C3 active protein

Active Complement Component 3 (C3)

CATALOG # AAA161793	HOST E Coli	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

Complement Component 3 (C3); Active Complement Component 3 (C3); Complement Component 3; ASP; CPAMD1; Complement Protein C3; C3 and PZP-like alpha-2-macroglobulin domain-containing protein 1; C3a anaphylatoxin; Acylation stimulating protein4; C3 active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	Greater than 95% by SDS-PAGE
Form/Format	Freeze-dried powder; PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Sequence	Leu1000–GI u1326
Applicable Applications for C3 active protein	Activity Assay, Cell Culture
Species	Human
Expression System	Prokaryotic expression
Tag	N-terminal His Tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method)
Isoelectric Point	6
Research Area	Signal transduction, Infection immunity, Immune molecule
Preparation and Storage	Store at 2-8 degree C for one month, -80 degree C for 12 months

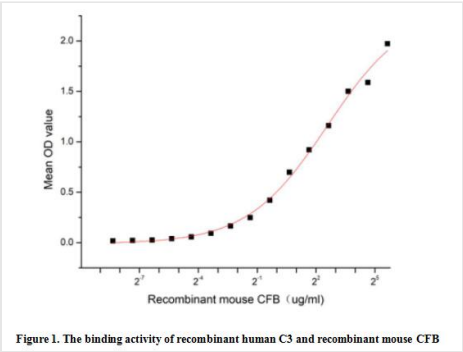
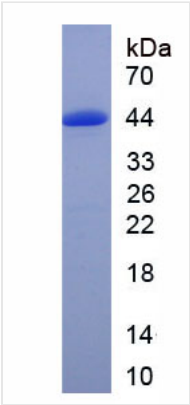


Figure 1. The binding activity of recombinant human C3 and recombinant mouse CFB



SDS-PAGE
Figure. SDS-PAGE

Bioactivity
Complement Component 3 (C3) is a vital component of the complement system that plays a central role in immune response and inflammation. C3 is a beta₂ globulin synthesized by the liver, whose structure consists of two polypeptide chains, alpha and beta, and is the most abundant complement component in serum. It's been identified that C3 can interact with Complement Factor B (CFB), thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human C3 and recombinant mouse CFB. Briefly, CFB was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 ul were then transferred to C3-coated microtiter wells and incubated for 1h at 37 degree C. Wells were washed with PBST and incubated for 1h with anti-CFB pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37 degree C, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37 degree C. Finally, add 50 uL stop solution to the wells and read at 450/630 nm immediately. When Recombinant C3 is immobilized at 2 ug/mL (100 uL/well), the concentration of CFB that produces 50% optimal binding response is found to be approximately 5.96 ug/mL.

ADDITIONAL INFORMATION

Product Categories/Family for C3 active protein	Active proteins
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NCBI AND UNIPROT INFORMATION

NCBI GI #	152012784
NCBI GeneID	718
UniProt Accession #	P01024; A7E236
Molecular Weight	187,148 Da
NCBI Official Full Name	Complement component 3
NCBI Official Synonym Full Names	complement component 3
NCBI Official Symbol	C3
NCBI Official Synonym Symbols	ASP; C3a; C3b; AHUS5; ARMD9; CPAMD1
NCBI Protein Information	complement C3; prepro-C3; C3a anaphylatoxin; complement component C3; complement component C3a; complement component C3b; acylation-stimulating protein cleavage product; C3 and PZP-like alpha-2-macroglobulin domain-containing protein 1
UniProt Protein Name	Complement C3
UniProt Gene Name	C3
UniProt Synonym Gene Names	CPAMD1; ASP
UniProt Entry Name	CO3_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/complement-component-3-c3/161793>