

Complement Component 4a (C4a) Active Protein | C4a active protein

Active Complement Component 4a (C4a)

CATALOG # AAA161728	HOST E Coli	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

Complement Component 4a (C4a); Active Complement Component 4a (C4a); Complement Component 4a; C4a anaphylatoxin4; C4a active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	Greater than 90% by SDS-PAGE
Form/Format	Freeze-dried powder; PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Sequence	Asn680~Arg 756
Applicable Applications for C4a active protein	Activity Assay, Cell Culture
Species	Human
Expression System	Prokaryotic expression
Tag	N-terminal His and GST Tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method)
Isoelectric Point	8.4
Research Area	Immune molecule, Endocrinology
Preparation and Storage	Store at 2-8 degree C for one month, -80 degree C for 12 months

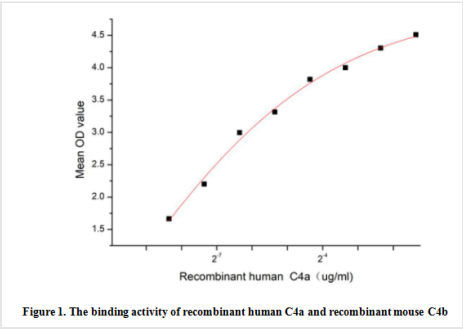
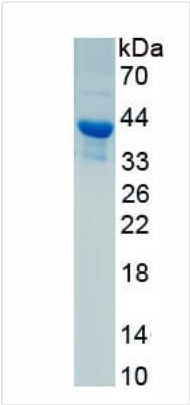


Figure 1. The binding activity of recombinant human C4a and recombinant mouse C4b

Bioactivity

Complement Component 4a (C4a) is a component of the complement system, which is a cleavage product of the complement C4 protein. C4a has been implicated in various inflammatory and immune responses. It acts as a chemoattractant, recruiting immune cells such as neutrophils and macrophages to the site of inflammation. Additionally, C4a can stimulate the release of pro-inflammatory cytokines and chemokines, further amplifying the immune response. C4a and C4b are the two subunits of C4, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human C4a and recombinant mouse C4b. Briefly, C4a was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 ul were then transferred to C4b-coated microtiter wells and incubated for 1h at 37 degree C. Wells were washed with PBST and incubated for 1h with anti-C4a 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. The binding activity of recombinant human C4a and recombinant mouse C4b was shown in Figure 1, and this effect was in a dose dependent manner.



SDS-PAGE

Figure. SDS-PAGE

ADDITIONAL INFORMATION

Product Categories/Family for C4a active protein	Active proteins
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NCBI AND UNIPROT INFORMATION

NCBI GI #	178557739
NCBI GeneID	721
NCBI Accession #	NP_001002029.3
NCBI GenBank Nucleotide #	NM_001002029.3
UniProt Accession #	P0C0L5; P01028; P78445; Q13160; Q13906; Q14033; Q14835; Q6U2E9; Q6U2G1; Q6U2I5; Q6U2L1; A2BHY4
Molecular Weight	192,751 Da
NCBI Official Full Name	complement C4-B preproprotein
NCBI Official Synonym Full Names	complement component 4B (Chido blood group)
NCBI Official Symbol	C4B
NCBI Official Synonym Symbols	CH; C4F; CO4; C4B1; C4B2; C4B3; C4B5; C4BD; C4B12; C4B_2; CPAMD3
NCBI Protein Information	complement C4-B; C3 and PZP-like alpha-2-macroglobulin domain-containing protein 3; Chido form of C4; basic complement C4; complement C4B1a
UniProt Protein Name	Complement C4-B
UniProt Gene Name	C4B
UniProt Synonym Gene Names	CO4; CPAMD3
UniProt Entry Name	CO4B_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-4a-c4a/161728>