

Complement Component 3a (C3a) Active Protein | C3a active protein

Active Complement Component 3a (C3a)

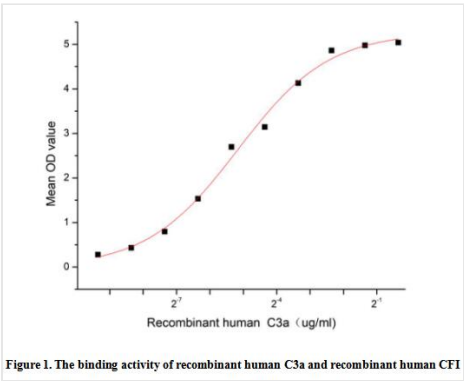
CATALOG # AAA161726	HOST E Coli	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

Complement Component 3a (C3a); Active Complement Component 3a (C3a); Complement Component 3a4; C3a 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	Ser672~Arg 748
Applicable Applications for C3a 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	8.2
Research Area	Infection immunity, Immune molecule, Autoimmunity
Preparation and Storage	Store at 2-8 degree C for one month, -80 degree C for 12 months

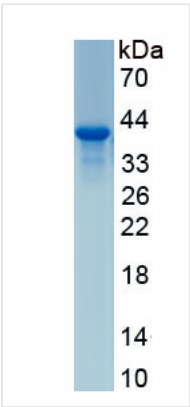


Bioactivity

Complement Component 3a (C3a) is a component of the complement system, this protein is also known as the C3a anaphylatoxin, modulates inflammation and possesses antimicrobial activity. It's been identified that C3a can interact with Complement Factor I (CFI), thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human C3a and recombinant human CFI. Briefly, C3a was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 ul were then transferred to CFI-coated microtiter wells and incubated for 1h at 37 degree C. Wells were washed with PBST and incubated for 1h with anti-C3a 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 C3a and recombinant human CFI was shown in Figure 1, the EC50 for this effect is 0.03 ug/mL.

SDS-PAGE

Figure. SDS-PAGE



ADDITIONAL INFORMATION

Product Categories/Family for C3a 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.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com

Online datasheet: <https://stage.aaabiotech.com/e-coli-active-protein/complement-component-3a-c3a/161726>