

C4 Binding Protein Alpha (C4BPα) Active Protein | C4BPα active protein

Active C4 Binding Protein Alpha (C4BPα)

CATALOG # AAA161854	HOST E Coli	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

C4 Binding Protein Alpha (C4BPα); Active C4 Binding Protein Alpha (C4BPα); C4 Binding Protein Alpha; C4BP-α; PRP; C4BP; Complement Component 4 Binding Protein; Alpha; Proline-rich protein4; C4BPα 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	Gln548~Leu 597
Applicable Applications for C4BPα 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	Immune molecule
Preparation and Storage	Store at 2-8 degree C for one month, -80 degree C for 12 months

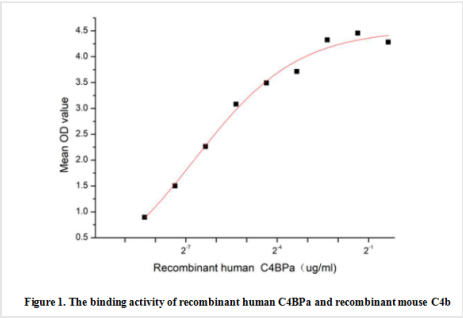
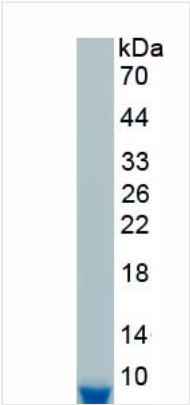


Figure 1. The binding activity of recombinant human C4BPα and recombinant mouse C4b

Bioactivity

C4BPα, also known as C4b-binding protein alpha chain or C4BPα, is a subunit of the complement factor C4b-binding protein (C4BP), which plays a crucial role in the regulation of the complement system, a part of the immune system that helps to defend the body against infection. C4BPα is part of a heterodimeric protein complex that consists of two chains, the alpha chain (C4BPα) and the beta chain (C4BPβ). It can bind to C4b and C3b, thereby inhibiting the formation of the C3 convertase and preventing excessive complement activation. Thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human C4BPα and recombinant mouse C4b. Briefly, C4BPα 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-C4BPα 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 C4BPα and recombinant mouse C4b was shown in Figure 1, the EC50 for this effect is 0.01 ug/mL



SDS-PAGE
Figure. SDS-PAGE

ADDITIONAL INFORMATION

Product Categories/Family for C4BPα active protein	Active proteins
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4502503
NCBI GeneID	722
NCBI Accession #	NP_000706.1
NCBI GenBank Nucleotide #	NM_000715.3
UniProt Accession #	P04003
Molecular Weight	67,033 Da
NCBI Official Full Name	C4b-binding protein alpha chain
NCBI Official Synonym Full Names	complement component 4 binding protein, alpha
NCBI Official Symbol	C4BPA
NCBI Official Synonym Symbols	PRP; C4BP
NCBI Protein Information	C4b-binding protein alpha chain; proline-rich protein
UniProt Protein Name	C4b-binding protein alpha chain
UniProt Gene Name	C4BPA
UniProt Synonym Gene Names	C4BP; C4bp; PRP
UniProt Entry Name	C4BPA_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/c4-binding-protein-alpha-c4bpa/161854>