

C ReProtein (CRP) Active Protein | CRP active protein

Active C Reactive Protein (CRP)

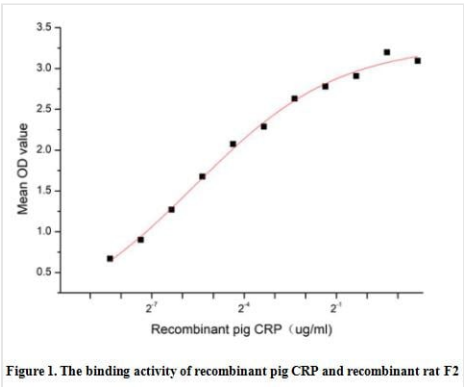
CATALOG # AAA161784	HOST E Coli	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

C ReProtein (CRP); Active C Reactive Protein (CRP); C Reactive Protein; C-RP; PTX1; Pentraxin-Related; Pentraxin 14; CRP active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	Greater than 97% by SDS-PAGE
Form/Format	Freeze-dried powder; PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Sequence	Gln20~Pro2 22
Applicable Applications for CRP active protein	Activity Assay, Cell Culture
Species	Pig
Expression System	Prokaryotic expression
Tag	N-terminal His Tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method)
Isoelectric Point	9.1
Research Area	Tumor immunity, Infection immunity, Cardiovascular biology, Rheumatology
Preparation and Storage	Store at 2-8 degree C for one month, -80 degree C for 12 months

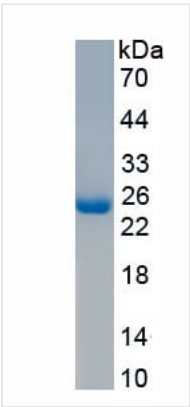


Bioactivity

Reactive protein (CRP) is an annular (ring-shaped), pentameric protein found in blood plasma, whose levels rise in response to inflammation. It is an acute-phase protein of hepatic origin that increases following interleukin-6 secretion by macrophages and T cells. Its physiological role is to bind to lysophosphatidylcholine expressed on the surface of dead or dying cells (and some types of bacteria) in order to activate the complement system via C1q. Besides, Coagulation Factor II (F2) has been identified as an interactor of CRP, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant pig CRP and recombinant rat F2. Briefly, CRP was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 ul were then transferred to F2-coated microtiter wells and incubated for 1h at 37 degree C. Wells were washed with PBST and incubated for 1h with anti-CRP 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 pig CRP and recombinant rat F2 was shown in Figure 1, the EC50 for this effect is 0.02 ug/mL.

SDS-PAGE

Figure. SDS-PAGE



ADDITIONAL INFORMATION

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

NCBI GI #	55742770
NCBI GeneID	396842
NCBI Accession #	NP_999009.1
NCBI GenBank Nucleotide #	NM_213844.2
UniProt Accession #	O19062
Molecular Weight	24,925 Da
NCBI Official Full Name	C-reactive protein
NCBI Official Symbol	CRP
NCBI Protein Information	C-reactive protein
UniProt Protein Name	C-reactive protein
UniProt Gene Name	CRP
UniProt Synonym Gene Names	PTX1

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.

