

Anti-Rat CRP Antibody [PSH12-79] - BSA and Azide free (Capture)

HA725049



Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Rat
Applications:	ELISA(Cap)
Clone number:	PSH12-79

Description: C-reactive protein (CRP) is an annular (ring-shaped) pentameric protein found in blood plasma, whose circulating concentrations 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. CRP is synthesized by the liver in response to factors released by macrophages, T cells and fat cells (adipocytes). It is a member of the pentraxin family of proteins.[6] It is not related to C-peptide (insulin) or protein C (blood coagulation). C-reactive protein was the first pattern recognition receptor (PRR) to be identified.

Immunogen: Recombinant protein within Rat CRP aa 20-230 (HA211008).

Positive control: Recombinant Rat CRP protein (HA211008).

Subcellular location: Secreted.

Database links: SwissProt: P48199 Rat

Recommended Dilutions:

ELISA(Cap) Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit monoclonal [PSH12-80] to Rat CRP antibody (Detector) (HA725050) and Recombinant Rat CRP protein (HA211008) as the standard. The reference range value is 78.1-10,000 pg/mL.

Storage Buffer: 1*PBS (pH7.4).

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

Service mail:support@huabio.cn

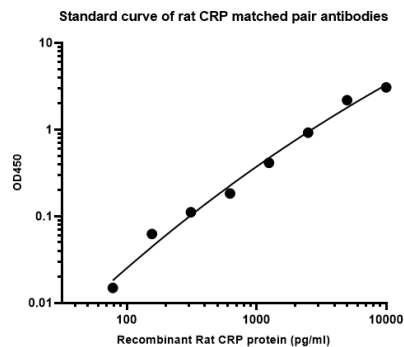
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Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

Images

Fig1: Sandwich ELISA analysis of Rat CRP matched pair antibodies

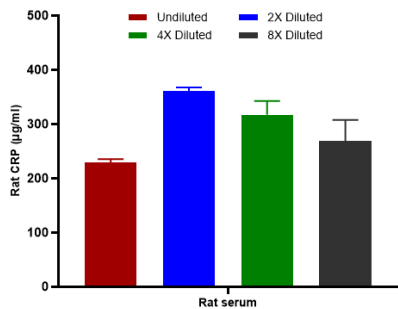
Capture: HA725049, Rat CRP Rabbit mAb [PSH12-79]
Detector: HA725050, Rat CRP Rabbit mAb [PSH12-80]



Elisa assay was performed by coating wells of a 96-well plate with 50 μ l per well of capture antibody (HA725049) diluted in carbonate/bicarbonate buffer, at a concentration of 2 μ g/ml overnight at 4 $^{\circ}$ C. Wells of the plate were washed, blocked with 150 μ l 0.05% tween-20 1% BSA blocking buffer, and incubated with serial diluted Recombinant Rat CRP protein (HA211008) starting from 10,000 pg/ml to 0 pg/ml and detect antibody (HA725050, Biotin, 0.2 μ g/ml) for 1 hour at 30 $^{\circ}$ C with shaking. Then the plate was washed and incubated with 50 μ l per well of SA-HRP for 0.5 hour at 30 $^{\circ}$ C with shaking. Detection was performed using an Ultra TMB Substrate for 10 minutes at room temperature in the dark. The reaction was stopped with sulfuric acid and absorbances were read on a spectrophotometer at 450 nm.

Fig2: Interpolated concentrations of native CRP in rat serum samples.

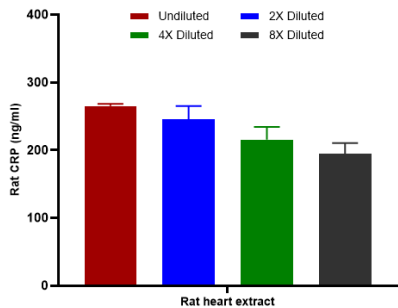
Capture: HA725049, Rat CRP Rabbit mAb [PSH12-79]
Detector: HA725050, Rat CRP Rabbit mAb [PSH12-80]



The concentrations of CRP were measured in duplicates, interpolated from the CRP standard curve and corrected for sample dilution. Undiluted samples are rat serum 0.0031%. The interpolated dilution factor corrected values are plotted (mean $\pm$ SD, n=2). The mean CRP concentration was determined to be 294 μ g/ml in rat serum.

Fig3: Interpolated concentrations of native CRP in rat heart extract samples based on a 1,000 μ g/ml extract load.

Capture: HA725049, Rat CRP Rabbit mAb [PSH12-79]
Detector: HA725050, Rat CRP Rabbit mAb [PSH12-80]



The concentrations of CRP were measured in duplicates, interpolated from the CRP standard curve and corrected for sample dilution. Undiluted samples are rat heart extract 2.5%. The interpolated dilution factor corrected values are plotted (mean $\pm$ SD, n=2). The mean CRP concentration was determined to be 230 ng/ml in rat heart extract.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Zhu M et al. C-reactive protein and cancer risk: a pan-cancer study of prospective cohort and Mendelian randomization analysis. BMC Med. 2022 Sep
2. Rizo-Téllez SA et al. C-reactive protein: a target for therapy to reduce inflammation. Front Immunol. 2023 Jul

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