**APL329Hu01 100μg**
**Active Complement Factor H Related Protein 3 (CFHR3)**
**Organism Species: Homo sapiens (Human)**
***Instruction manual***

FOR IN VITRO USE AND RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Apr, 2016)

## [ PROPERTIES ]

**Source:** Prokaryotic expression.
**Host:** *E. coli*
**Residues:** Glu208~Glu330
**Tags:** N-terminal His-tag
**Purity:** >98%
**Buffer Formulation:** 20mM Tris, 150mM NaCl, pH8.0, containing 0.05% sarcosyl and 5% trehalose.
**Applications:** Cell culture; Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
**Predicted isoelectric point:** 6.8
**Predicted Molecular Mass:** 17.7kDa
**Accurate Molecular Mass:** 18kDa as determined by SDS-PAGE reducing conditions.

## [ USAGE ]

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

## [ STORAGE AND STABILITY ]

**Storage:** Avoid repeated freeze/thaw cycles.
Store at 2-8°C for one month.
Aliquot and store at -80°C for 12 months.

**Stability Test:** The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37ºC for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

## [ SEQUENCE ]

EKC GPPPPISNGD TTSFLLKVYV PQSRVEYQCQ PYYELQGSNY VTCSNGEWSE PPRCIHPCII TEENMNKNNI KLKGRSDRKY YAKTGDTIEF MCKLGYNANT SILSFQAVCR EGIVEYPRCE

## [ ACTIVITY ]

Complement Factor H Related Protein 3 (CFHR3) is a member of a family of proteins related to the complement factor H. Factor H related proteins comprise a group of five plasma proteins: CFHR1, CFHR2, CFHR3, CFHR4 and CFHR5, and each member of this group binds to the central complement component C3b. Its principal function is to regulate the Alternative Pathway of the complement system, ensuring that the complement system is directed towards pathogens or other dangerous material and does not damage host tissue. Factor H regulates complement activation on self cells and surfaces by possessing both cofactor activity for the Factor I mediated C3b cleavage, and decay accelerating activity against the alternative pathway C3-convertase, C3bBb. Besides, Peroxiredoxin 4 (PRDX4) has been identified as an interactor of CFHR3, thus a binding ELISA assay was conducted to detect the interaction of recombinant human CFHR3 and recombinant human PRDX4. Briefly, CHFR3 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to PRDX4-coated microtiter wells and incubated for 2h at 37℃. Wells were washed with PBST and incubated for 1h with anti-CFHR3 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were

aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37℃. Finally, add 50μL stop solution to the wells and read at 450nm immediately. The binding activity of CFHR3 and PRDX4 was shown in Figure 1, and this effect was in a dose dependent manner.

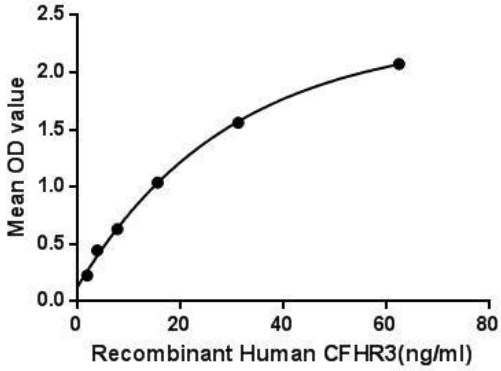


**Figure 1. The binding activity of CFHR3 with PRDX4**

## [ IDENTIFICATION ]

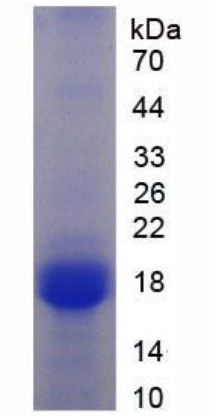


**Figure 2. SDS-PAGE**

**Sample: Active recombinant CFHR3, Human**

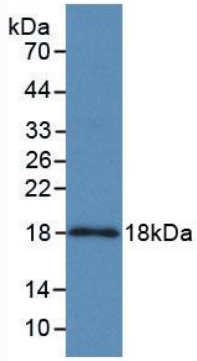


**Figure 3. Western Blot**

**Sample: Recombinant CFHR3, Human;**

**Antibody: Rabbit Anti-Human CFHR3 Ab (PAL329Hu01)**