

**APB559Hu01 100µg**

**Active Active Cofilin 1, Non Muscle (CFL1)**

**Organism Species: *Homo sapiens* (Human)**

***Instruction manual***

FOR RESEARCH USE ONLY

NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

---

---

1st Edition (Apr, 2016)

## **[ PROPERTIES ]**

**Source:** Prokaryotic expression.

**Host:** *E. coli*

**Residues:** Ser3~Leu161

**Tags:** N-terminal His-tag

**Purity:** >95%

**Endotoxin Level:** <1.0EU per 1µg (determined by the LAL method).

**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:** 8.5

**Predicted Molecular Mass:** 21.6kDa

**Accurate Molecular Mass:** 22kDa 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 37°C 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 ]**

```
SGVAVSDG VIKVFNDMKV RKSSTPEEVK KRKKAVLFCL SEDKKNIIIE  
EGKEILVGDV GQTVDDPYAT FVKMLPDKDC RYALYDATYE TKESKKEDLV  
FIFWAPESAP LKSKMIYASS KDAIKKCLTG IKHELQANCY EEVKDRCTLA  
EKLGGSAVIS L
```

## **[ ACTIVITY ]**

Cofilin 1 (non-muscle; n-cofilin), also known as CFL1, is a human gene, part of the ADF/cofilin family. Cofilin is a widely distributed intracellular actin-modulating protein that binds and depolymerizes filamentous F-actin and inhibits the polymerization of monomeric G-actin in a pH-dependent manner. It is involved in the translocation of actin-cofilin complex from cytoplasm to nucleus. Besides, Actin Beta (ACTb) has been identified as an interactor of CFL1, thus a binding ELISA assay was conducted to detect the interaction of recombinant human CFL1 and recombinant human ACTb. Briefly, CFL1 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to ACTb-coated microtiter wells and incubated for 2h at 37 °C. Wells were washed with PBST and incubated for 1h with anti-CFL1 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 °C. Finally, add 50µL stop solution to the wells and read at 450nm immediately. The binding activity of CFL1 and ACTb was shown in Figure 1, and this effect was in a dose dependent manner.

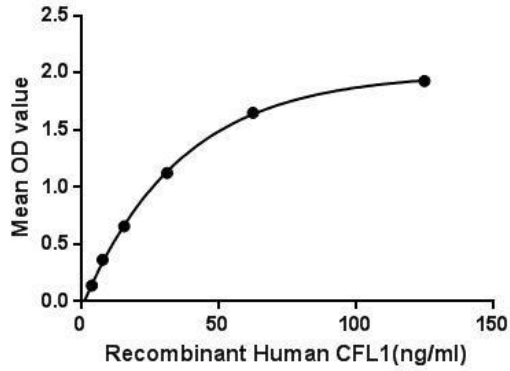


Figure 1. The binding activity of CFL1 with ACTb.

## [ IDENTIFICATION ]

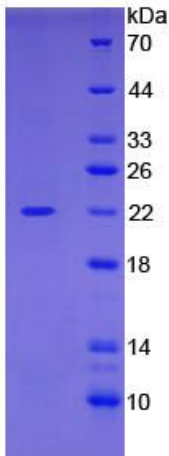
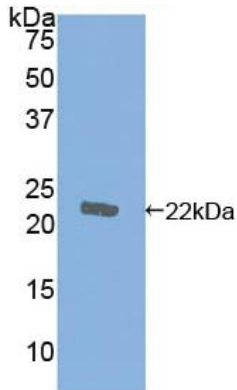


Figure 2. SDS-PAGE

Sample: Active recombinant CFL1, Human



**Figure 3. Western Blot**

**Sample: Recombinant CFL1, Human;**

**Antibody: Rabbit Anti-Human CFL1 Ab (PAB559Hu01)**

### **[ IMPORTANT NOTE ]**

The kit is designed for in vitro and research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.