

**APG613Hu01 100µg**

**Active Arylsulfatase F (ARSF)**

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

***Instruction manual***

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

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1th Edition (Apr, 2016)

## **[ PROPERTIES ]**

**Source:** Prokaryotic expression.

**Host:** *E. coli*

**Residues:** His23~Asp300

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

**Purity:** >99%

**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:** 6.9

**Predicted Molecular Mass:** 35.1kDa

**Accurate Molecular Mass:** 35kDa 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 ]**

```
HRVHDDKP NIVLIMVDDL GIGDLGICYGN
DTMRTPHIDR LAREGVRLTQ HISAASLCSP SRSFLTGRY PIRSGMVSSG
NRRVIQNLAV PAGLPLNETT LAALLKKQGY STGLIGKWHQ GLNCDSRSDQ
CHHPYNYGFD YYYGMPFTLV DSCWPDPSRN TELAFESQLW LCVQLVAIAI
LTLTFGKLSG WVSVPWLLIF SMILFIFLLG YAWFSSHTSP LYWDCLLMRG
HEITEQPMKA ERAGSIMVKE AISFLERHSK ETFLFFSFL HVHTPLPTTD
```

## **[ ACTIVITY ]**

ARSF (Arylsulfatase F) is a member of the sulfatase gene family, and more specifically, the arylsulfatase subfamily. Sulfatases are essential for the correct composition of bone and cartilage matrix. The activity of this protein, unlike that of arylsulfatase E, is not inhibited by warfarin. Besides, EP300 (E1A binding protein p300) has been identified as an interactor of ARSF, thus a binding ELISA assay was conducted to detect the interaction of recombinant human ARSF and recombinant human EP300. Briefly, ARSF were diluted serially in PBS, with 0.01%BSA (pH 7.4). Duplicate samples of 100uL were then transferred to EP300-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-ARSF 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 of ARSF and EP300 was shown in Figure 1, and this effect was in a dose dependent manner.

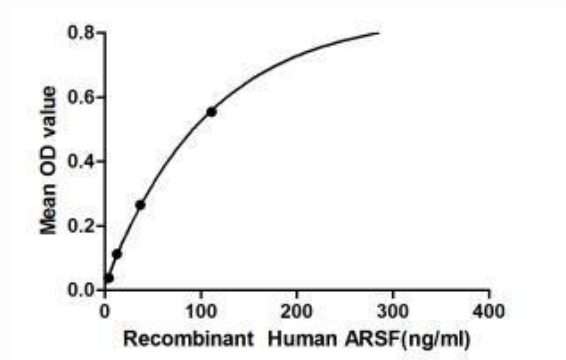


Figure 1. The binding activity of ARSF with EP300.

### [ IDENTIFICATION ]

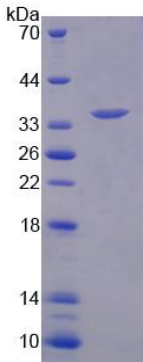


Figure 2. SDS-PAGE

Sample: Active recombinant ARSF, Human

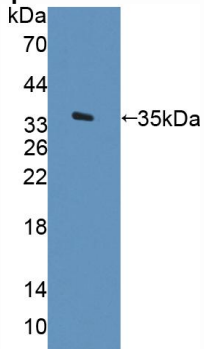


Figure 3. Western Blot

Sample: Recombinant ARSF, Human;

Antibody: Rabbit Anti-Human ARSF Ab (PAG613Hu01)