

**APG610Hu01 100µg**  
**Active Arylsulfatase B (ARSB)**  
**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:** Leu81~Met533

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

**Purity:** >80%

**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:** 7.7

**Predicted Molecular Mass:** 55.2kDa

**Accurate Molecular Mass:** 55kDa 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 ]

```
LLDNYYTQPL CTPSRSQLLT
GRYQIRTGLQ HQIIWPCQPS CVPLDEKLLP QLLKEAGYTT HMGVKWHLGM
YRKECLPTRR GFDTYFGYLL GSEDYYSHER CTLIDALNVT RCALDFRDGE
EVATGYKNMY STNIFTKRAI ALITNHPPEK PLFLYLALQS VHEPLQVPEE
YLKPYDFIQD KNRHHYAGMV SLMDEAVGNV TAALKSSGLW NNTVFIFSTD
NGGQTLAGGN NWPLRGRKWS LWEGGVRGVG FVASPLLKQK GVKNRELIHI
SDWLPTLVKL ARGHTNGTKP LDGFDVWKT I SEGSPSPRIE LLHNIDPNFV
DSSPCPRNSM APAKDDSSLP EYSAFNTSVH AAIRHGNWKL LTGYPGCGYW
FPPPSQYNVS EIPSSDPPTK TLWLFIDIRD PEERHDL SRE YPHIVTKLLS
RLQFYHKHSV PVYFPAQDPR CDPKATGVWG PWM
```

## [ ACTIVITY ]

Arylsulfatase B (ARSB) is a lysosomal enzyme of the sulfatase family. ARSB hydrolyzes sulfate groups of N-Acetyl-D-galactosamine, chondroitin sulfate, and dermatan sulfate. The protein is targeted to the lysosome. Besides, Plasminogen Activator, Urokinase Receptor (uPAR) has been identified as an interactor of ARSB, thus a binding ELISA assay was conducted to detect the interaction of recombinant human ARSB and recombinant human uPAR. Briefly, ARSB were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100µL were then transferred to uPAR-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-ARSB 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 ARSB and uPAR was shown in Figure 1, and this effect was in a dose dependent manner.

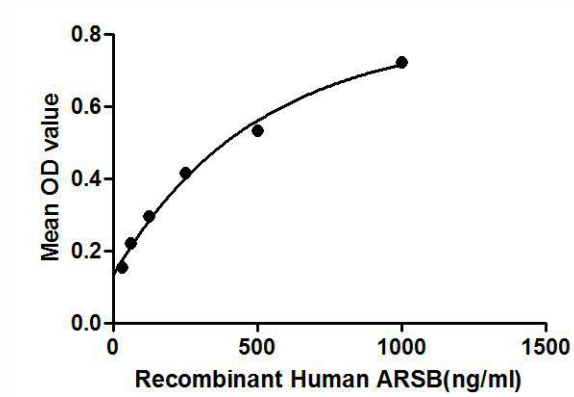


Figure 1. The binding activity of ARSB with uPAR.

## [ IDENTIFICATION ]

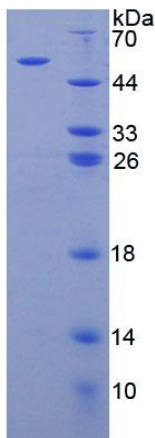
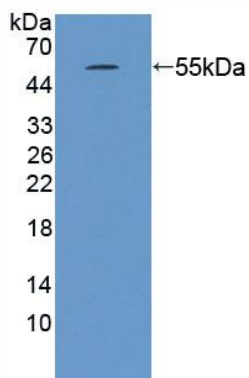


Figure 2. SDS-PAGE

Sample: Active recombinant ARSB, Human



**Figure 3. Western Blot**

**Sample: Recombinant ARSB, Human;**

**Antibody: Rabbit Anti-Human ARSB Ab (PAG610Hu01)**